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PROPERTY AND VALUATION METHODS IN NEW MEDIA

An examination of existing Theories and Practices and their applicability to New Media Ventures

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Word Count: **22890**

Research dissertation presented for the approval of Senate in fulfilment of part of the requirements for the degree of Masters of Law in approved courses and a minor dissertation. The other part of the requirement for this qualification was the completion of a programme of courses.

I hereby declare that I have read and understood the regulations governing the submission of LLM dissertations, including those relating to length and plagiarism, as contained in the rules of this University, and that this dissertation conforms to those regulations.

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Abstract

New media has become a major part of our daily routine and influences both our social interactions and the ways in which we conduct business. Not only does it provide new business tools to existing business models, it has also created a platform from which new forms of commerce and exchange can emerge.

These novel enterprises are largely unrestrained by the capital and regulatory requirements of traditional forms of business and have other peculiar characteristics that may challenge our current views on ‘property’ and ‘ownership’.

The potential of new media to compete with, and potentially displace, players in the ‘real economy’ requires a further examination of the valuation methods currently applied to business ventures, in particular those in which intellectual property and intangible assets are a major component.

It is beyond the scope of this dissertation to propose alternative methods of valuing intellectual property in the new media environment. It does, however, aim to consider various theories on property and traditional valuation methods in light of this new phenomena.

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Introduction:
New Media and the Networked Information Economy

'New media' is a broad term which refers to the amalgamation of traditional media such as video, images, music, audio and text, with the interactive power of new technological applications and devices. It also describes the product of internet users' ability to create and adapt online, digital content and to share their creations via the internet. It is characterized by user connectivity and access to digital content (through an electronic device of some sort) which allows greater interaction, creative collaboration and community formation.

There can be a distinction between 'cyberculture' such as blogs and network gaming, that refer to social phenomena shaped by the internet and 'new media', which describes a paradigm shift from one technology to another. For the purpose of this dissertation, no such distinction is necessary and all forms of networked communications and applications enabled by user interaction via the internet are considered 'new media'.

The convergence of web and mobile applications has simultaneously aided and been enhanced by the expansion of the internet and increased user capability has transformed the internet from a 'read-only' display to a 'read-write' platform, which is self-sustaining and regenerative.

In reality, a simultaneous lowering of communication, production and distribution costs[1] has allowed this communal network of information to become the core of commerce, education and social behaviour.[2]

Where the internet was birthed as a one to many information source, new media is the result of its evolution into a participatory platform through which users have the ability to create, adapt and share content, form

[1] Boyle *The Public Domain: Enclosing the Commons of the Mind* (2008) 196
[2] Benckler *Wealth of Networks* (2006) 34

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communities and problem solve with one another on an unprecedented scale.[3]

Prior to the connectivity facilitated by the world wide web, the creation and absorption of information was a private matter.[4] Now, individuals may co-create, share and access each other's content to form online communities which alters the way in which we perceive and use the World Wide Web. The present generation of internet users are no longer passive recipients of information distributed by organizations through a network of interconnected servers. Instead, they are active participants, developers and commentators that contribute and enhance this very network and its content, a phenomena referred to as 'Web 2.0'.[5]

This ability of users to co-create content and to form communities has transformed the Internet from a 'read-only' display to a 'read-write' platform often referred to as the 'Read/Write Web' or 'Web 2.0'. [6] The term 'Web 2.0' is also associated with web applications that facilitate participatory, information sharing and collective intelligence,[7] interoperability and user-centered design[8] which leads to a richer user experience and openness[9] and encourages participation to ensure dynamic content and scalability.[10]

McAfee reckons the concept of Web 2.0 can be broken up into the following features:[11]

- Searching - the ability to find information on the internet through keyword searches;

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[3] Garcia-Garcia and Alonso de Magdaleno-Garcia-Garcia and Alonso de Magdaleno and Alonso *Fair Value on Commons-based Intellectual Property Assets* (2010) 3
[4] Benckler (n2) 5
[5] Zimmer, M 'Critical Perspectives on Web 2.0' (2008)
[6] Tim Berners-Lee BBC Newsnight Interview transcribed on the Readwritweb (2005)
[7] O'Reilly *What is Web 2.0. Design Patterns and Business Models for the Next Generation of Software* (2005) 30
[8] Sharma *Core Characteristics of Web 2.0 Services* (2011)
[9] Greenmeier and Gaudin *Amid The Rush To Web 2.0, Some Words Of Warning (*2011)
[10] Best *Web 2.0 Next Big Thing or Next Big Internet Bubble? Lecture* (2006)
[11] McAfee *Enterprise 2.0: The Dawn of Emergent Collaboration* (2006) 21–28

- Links – that connect parcels of information together in a web format;
- Authoring – user's ability to create, alter and update content which ultimately results in collaborative works;
- Tags – the function which allows users to organically categorize content that further enables and refines searching ;
- Extensions – web enhancing software that enables the web to be an application platform beyond a mere document server or digital archive; and
- Signals - syndication technology that notifies users of content changes.[12]

The interactive power of new technological applications and devices has led to a proliferation of user-generated content and applications and has led to the emergence of podcasts, RSS feeds, social networks, crowd-sourcing, blogs and video logs, wikis, virtual worlds, mashups, instant messaging platforms and even cloud computing. To the Web 2.0 generation of internet user, these terms form part of their everyday interactions and it is hard to believe that no more than two decades ago, very few of these concepts existed.

Predictions that new media will ultimately alter our concept of geographic distance,[13] exponentially increase the volume and speed of communication and alter the manner and methods by which we communicate have already been realized.[14]

New media is also shaping our modern concept of collaboration and democracy by empowering a greater number of users, geographically dispersed and culturally diverse, to collaborate, form interest groups and

[12] McAfee *(Ibid)* uses the acronym 'SLATES' to refer to these features
[13] Croteau and Hoynes *Media Society: Industries, Images and Audiences* (2003) 311
[14] Croteau and Hoynes (n13) 322

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even organize themselves into political activist movements.[15] What is significant about this new media community is that it enables the early identification of trends, anticipates and crafts future technologies and allows its users to develop workable solutions to each new set of challenges posed by this ever evolving environment.

It is not surprising then that this new form of collaboration and sharing has, and will continue, to birth a number of applications and platforms that have either become or borne commercial endeavours.

New media has led to new business models and has had a significant impact on several industries, most notably the advertising and entertainment industries which have used this interactive dialogue with consumers for public relations purposes and the dissemination of electronic media to a mass audience. Undoubtedly, user ability to copy and distribute content is also redefining certain industries, such as music and publishing, which may be under threat if they resist consumer demands in a digital age.

Examples of such ventures include electronic newsfeeds, blogs and online pin boards, e-money and mobile credits, audio and video streaming services and publically curated information archives. New media has also led to a renaissance in advertising, publishing and communication. Many of these ventures have acquired world-wide recognition in a relatively short period of time and include sizeable enterprises such as Google, Facebook, Twitter, Groupon, Pandora and Pinterest.

It is inherent in the concept of 'new media' to always be evolving and as these models grow in number, size, scope and value, they are moving from the periphery towards mainstream economy.[16] Whether these

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[15] Examples include Avaaz (http://www.avaaz.org/en/), an internet-based global activist movement with over seventeen million members (as at December 2012) and Wikileaks (http://wikileaks.org/About.html), a controversial electronic drop-box that accepts and publishes leaked, confidential information.
[16] Benckler (n2) 3

companies build on traditional forms of business[17] render competing online services[18] or are completely novel,[19] they are creating new products and services, and often even their own markets, based on incorporeal assets.[20]

This advancement should come as no surprise considering the rising importance of intellectual property assets in the world economy over the last few decades. It is now widely accepted that the term 'capital' incorporates intangible assets such as confidential information, know-how and trade secrets, patents, copyright and trademarks. In fact, many experts believe the optimal management of intellectual capital and intangible resources will determine the most successful companies in the near future and drive the digital information economy[21] and it has been stated that 'intellectual property [has become] the central resource for creating wealth in almost all industries and [that] the foundation of commercial power has shifted from physical resources to intellectual property.'[22]

As we move further into this new age of networked information technology, it is clear that capital investment in its traditional sense is no longer the major requirement for establishing a globally competitive company. With lower barriers to entry and the possibility of outsourcing or crowd-sourcing[23], up-start companies no longer need to secure rights to natural resources or to make substantial investments in manufacturing

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[17] Examples of new media ventures that mimic or build on traditional service providers is Groupon, an aggregate voucher scheme and Pinterest, an online pinboard platform with a community of users that can view each other's pinboards and 'pin' personal images and items available on the internet.
[18] Examples of new media ventures that compete with traditional service providers by providing a quicker, easier, cost-effective and convenient alternative are Paypal, an international electronic payments platform and Amazon, one of the first online shopping platforms.
[19] Examples of new media ventures that are completely novel are Facebook and Twitter, both micro-blogging platforms in which users connect with each other and share information. The concept of a search engine, such as Google or Yahoo was once a novel ventures as well.
[20] Parr *Pricing Intangible Assets: Methods of Valuation of Intellectual Property* (1998) 4
[21] *Ibid.* See also Akdemir and Akpinar *Intellectual Capital* (333)
[22] *Ibid*
[23] Crowd-sourcing denotes the outsourcing of a project or task to a distributed group of individuals (Definition: http://www.merriam-webster.com/dictionary/crowdsourcing)

plants and physical equipment to build on, displace, or compete with, incumbents.[24] This is also evident from the increased number of technology and new media companies rising to the top ranks of the world's most powerful companies.[25]

The formation of new media enterprises consisting almost entirely of intangible assets takes this principle much further and is the pinnacle of internet based commerce in the information age.

However, conventional economics fails to adequately explain why these models that are often commons based and peer-produced, are succeeding and accepted standards of financial reporting do not provide adequate methods for valuing and reporting on new media ventures, causing a discrepancy between the financial statements and market value of new media companies. This discrepancy can be found both ways as a new media venture could be attributed a much higher value than a similar revenue model in a traditional business venture simply because investors overestimate its scalability and future growth. Alternatively, certain models may not yet have an established application or market and may be grossly undervalued when traditional valuation methods are applied to it.

With an increasing number of new media ventures becoming commercial enterprises and even listing on public exchanges, suitable methods of classifying and valuing intellectual property are becoming essential.

This dissertation examines the nature of these new media ventures and whether traditional forms of intellectual property are adequate in defining and protecting the value created by these enterprises. It further examines

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[24] Parr (n20) 4

[25] During August 2012, Apple Inc., an American technology company that is notoriously protective over its intellectual property, momentarily became the world's biggest company with its stock valuing at US$623 Billion, although accounting for inflation would have another technology giant and purveyor of intellectual property, Microsoft, at a market capitalisation of US$850 billion during its peak in 1999. Whilst both these companies do provide physical products in conjunction with software, it is interesting to note that, along with IBM and Google, they also appear high on Forbes Magazine's top twenty list of most admired and most valuable companies and make up four of the five most valuable brands according the annual BrandZ Valuation.

accepted theories of property and valuation techniques and their suitability to the recognition and valuation of new media ventures.

Part I considers the concept of “property” by examining its origin and various characteristics. Having established that certain resources can be privately owned, Part II considers various forms of property management and offers a brief discussion on the subject of private property, the public domain and the commons; and how these concepts may be applied to the internet and new media. Part III offers reasons why it is necessary to identify and value intellectual property resulting from creative endeavours in the new media economy. It further discusses three major valuation methods and their applicability to recognised forms of intellectual property and new media. Part IV considers how traditional forms of intellectual property are relevant to new media ventures and concludes that a re-examination of our basic understanding of property and associated rights may be required to adequately identify the value of a new media venture.

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PART I

The Concept of 'Property'

The concept of 'property' and its origins has been the subject of many discussions through the ages as it serves as an indicator of power and control. Whilst some argue that the concept of ownership over a 'thing' is de facto and pre-dates legal systems and government,[26] others describe 'property' as a 'power-relation constituted by legally sanctioned control over access to the benefits of excludable resources.'[27]

In line with the first definition, Roman law classifications of property distinguishes 'things' as being either capable of private ownership (*res in commercium)* or not (*res extra commercium).* Within the class of commercial goods, there is a further distinction between things which have been appropriated and are privately held (*res privatae)* and things which have not yet been appropriated, but are capable of being owned (*res nullius).* Within the class of goods that cannot be held by a single entity and are intended for common use and enjoyment are common things (*res communes omnium)* and public things (*res publicae).* [28]

Typically, these classifications are applied to tangible objects and possession is often a deciding factor in the allocation or enforcement of rights. Although these Roman law classifications may not have been intended to apply to personal or intangible rights, these classifications may shape our view on certain aspects of the internet, such as user generated content and new media ventures. The decisiveness, with which the

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[26] Krier *Evolutionary Theory and the Origin of Property Rights* (2009) 6, 144 fn 18 citing Bowles *Microeconomics: Behavior, Institutions, and Evolution* (2004). Bowles claims that property rights emerged naturally and individual claims on property existed without prompting from a centralised authority.
[27] Gray *Property in Thin Air* (1991) 295
[28] Collier *Agriculture, Modern Biotechnology and the Law* (2010) 28. See also Thomas, van der Merwe and Stoop *Historical Foundations of South African Private Law* 2nd ed (2000) 145

classification holds that certain objects are not capable of being privately held, is also perhaps noteworthy.[29]

Although the subjective theory of rights requires a 'thing' or object,[30] it can safely be said that our modern notion of property, as evidenced in established principles of intellectual property, favour the view that 'property' may also be a subjective bundle of rights. These rights may comprise a real or limited real right over an object, claims against the state derived from statute, or even patrimonial rights such as personal or immaterial property rights.[31] One can also distinguish between natural rights which may be enforced against everyone and contractual rights that are restricted to the contracting parties.[32] Even in ancient Rome, privatisation and trade was encouraged through the legitimizing of contractual agreements and codification, which provided certainty regarding the rules of private ownership and commerce.

The second definition is therefore more appropriate in the field of intellectual property where legal norms and artificial entitlements and restrictions or 'rights' seek to reward creative and industrious endeavour that may exist independent from a tangible object and physical possession,[33] but is enforceable between different subjects. As early as 1964, Reich concluded that wealth was increasingly taking the form of rights as opposed to possessions.[34] In this vein, he went as far as describing an exclusive franchise or licence, contract or business arrangement as 'wealth' surpassing the value of an enterprise's physical plant or equipment.[35] Today, such value is recognised and accounted for as 'goodwill' and factored into the valued estimation of an enterprise's monetary worth.

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[29] *Ibid*
[30] Du Bois *Wille's Principles of South African Law 9th ed* (2007) *406*
[31] Collier *(n28) 29*
[32] Thomas, van der Merwe and Stoop (n32) 145
[33] By example, the sale of an object which is the subject of a registered design, patent or copyright or is imprinted with a particular trade mark does not automatically result in the transfer of those intellectual property rights *per se*.
[34] Reich *The New Property* 738-739
[35] *Ibid*

If property is viewed then as something more than possession of a tangible object, in other words, a right or entitlement, it should share the most prominent characteristics of legally protected rights and entitlements.

In the first instance, rights are relative and even those rights which may be referred to as 'absolute' may have to compete with the same right shared by another or the competing rights of society at large. The ownership of physical property infers that others are denied ownership of the same thing, save for being co-owners of that thing and sharing this exclusive entitlement. In the case of intellectual property, the same rule applies with the added balance that needs to be struck between the interests of the individual owner that elicits incentive or reward for his effort or investment and society that desires access to that knowledge.[36]

This ability to control access to the benefits flowing from a particular object or intellectual property right is the second characteristic of a right, and likewise of 'property'. Excludability forms the basic premise of property[37] and is clear in the case of a tangible object to which access can be physically controlled and appropriation requires one party to obtain physical possession of the object whilst the other is denied access to it. This notion touches on the common law principle that 'property' or the benefits arising from such an entitlement, must be enforceable or transferable, which coincides with early views on property as an object of bargain and exchange.[38]

In the case of intellectual property, infringement or transfer does not necessarily dispossess the original holder of the object to which the right relates and access to it is controlled by imposing a combination of physical, moral or legal constraints.[39] Insofar as the actual rights are

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[36] This balance is maintained by legally granting the owner of the intellectual property right a monopoly over those rights, but limiting the duration of this monopoly to a limited period, which ensures ultimate access to the resultant innovations and works forming the subject of such a right. Minimum time periods are prescribed in TRIPS and reflected in various international IP treaties and national legislation of member states.
[37] Gray (n27) 294
[38] Gray (n27) 292 – 293, 301
[39] Gray (n27) 299

concerned, they do not exist without legal recognition excluding others from having the same right.

Lastly, rights and property, as products of law, are dynamic and influenced by the *boni mores* prevalent within a particular social, economic or political context. According to Gray,

> '[t]he precise allocation of "property" in excludable resources is left to be determined – is indeed constantly formulated and reformulated – by various kinds of social and moral consensus over legitimate modes of acquisition and the relative priority of competing claims.'[40]

The laws which reinforce assertions of property are therefore continually evolving, causing the nature and formulation of rights and what is regarded as 'property' to change from time to time.

But before one considers the allocation of property rights, it is perhaps useful to take a step back and consider the reason why this concept emerged at all.

Origin and Justification for Private Property

Having established that our modern understanding of property is that of a bundle of rights, it may be useful to consider the basic conditions that lead to the emergence of rights and entitlements.[41]

The first is scarcity, which by common understanding means that either the resource itself is limited or that access to it is restricted.[42] In economic terms, it means that the value of the resource exceeds the cost of securing and enforcing one's title to, or possession of, it. If this was not the case, control would be futile.[43] It is important to gauge the degree to which

[40] Gray (n27) *2*95
[41] Riker *A Political Theory of the Origin of Property Rights: Airport Slots* (1991) 951-955
[42] *Ibid*
[43] *Ibid*

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a resource is scarce as this determines the level of control which must be exercised over it.[44]

The second condition is that someone must have a need or desire to possess or control the resource to which the right is attached, as without this need or desire, the right itself would not emerge.[45]

Furthermore, the community or an authoritative body needs to recognize this right. These third parties are the 'rule-makers' and their view and recognition of this protectable interest effectively creates a common understanding or body of rules guiding the scope of the entitlement and makes it enforceable.[46] In essence, enforceability is therefore the third requirement for the establishment of an imposable right. It is noted however that the rules relating to enforcement could be formalized into rules or written laws or simply denote a consensus within the relevant community, such is the case in rudimentary common law systems. It should further be noted that whilst the benefit of enforcing the right must outweigh the potential cost of maintaining control over it for the rights-holder, the community or authoritative body also needs to benefit from recognising such an entitlement.[47] This communal benefit could be in the form of a tax or the mere benefit derived from greater efficiencies achieved as a result of peacefully allocating the right to a particular rights-holder.

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This notion that rights only emerge if the stake-holders benefit from them contrasts with purely economic theories where scarcity is the only factor that leads to some form of entitlement or ownership. This rationale may however be more suited to new media ventures where communal rules and practices, rather than scarcity, influence the use and application of resources. The rules applied to rivalrous resources should not however be transposed unto non-rivalrous, non-finite resources where the need to

[44] Lessig (n49) 95
[45] *Ibid*
[46] *Ibid*
[47] *Ibid*

regulate the use of the resource is replaced by the need to promote the creation of that resource.[48]

The notion of property therefore stems from the need, and perhaps later the belief, that a person, community or institution of some sort is entitled to exclude others from performing certain acts in relation to a resource or accessing the benefits flowing from such a resource.

Allocation of Property

The next question that arises is the means by which ownership of property is attributed to a particular party or group and the answer can possibly be found in a combination of the three most common theories:

(i) Possession/ Occupancy

The theory that possession or occupancy is the basis of ownership is contained in several common law principles. Regardless of our primordial instinct to assert control through possession or occupancy, this convention has been recognised in early legal systems. Roman law, through the principle of *rei vindicatio* even goes as far as prohibiting the owner of a thing from reclaiming its possession from a third party whom wrongfully acquired it, without following due process, whilst Roman Dutch law has imparted the rule of 'huur gaat voor koop' in several modern legal systems. Lesser rights, such as servitudes, that diminish the owner's rights may also be attributed a value.[49]

This theory does however presuppose an understanding of private ownership and the parameters of such ownership as well as a positive act of demarcation. As both these elements are adequately

[48] Lessig (n49) 95 referencing Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (1990)
[49] Thomas, van der Merwe and Stoop (n32) 135

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dealt with under the other two theories and the concept of possession or occupancy does not readily extend to digital media, there is no need to elaborate on this theory. It may however be noted that unlike with physical property, in the case of new media and open source initiatives, one person's acquisition of the electronic resource does not restrict another party's use and enjoyment of the resource, but may in fact increase the value of the overall commons to which the resource is allocated by increasing the number of active users within that group.

(ii) Social Contract and Communal Norms

The allocation of private property may emerge naturally within a particular group.

The allocation of private property creates certainty and minimizes administrative costs associated with negotiating or contending for a particular resource.[50] This allocation can be achieved in a number of ways, including allocation by some authority, such as the church or state,[51] or through behavioural conventions that arise spontaneously from a shared understanding or implicit agreement.[52]

Of course, the nature of the community itself could influence the rights that are conferred, how they are maintained and enforced, but there are few rights that cannot be rationalised through some form of consensus.[53] This form of allocation is commonly found in

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[50] Gray (n27) 303
[51] Authorities would award property rights in an effort to encourage efficient use and management of resources, as an exertion of power and to increase tax income. Riker and Sened (n41) 952-953
[52] Hume's 'A Treatise of Human Nature' (1736) which introduces the notion that a respect for another's property arises where there is a belief that others will similarly respect your property
[53] Gray (n27) 302

online user groups and communities that establish norms and restrict or 'evict' users that do not comply with these.

(iii) Locke's Standard Bourgeois Theory

Another theory which may offer a suitable justification for awarding property rights is Locke's theory known as the 'Standard Bourgeois Theory'.

This theory holds that original ownership is established by, and vests in, the person who exerts some form of labour to achieve it and so 'earns' a right to the fruits of that labour.[54] This model may be easily applied to new media ventures and open source models, insofar as labour is applied to another party's pre-existing work or possession.[55] This is often the case in new media ventures that build on existing databases, platforms or user generated content. This theory does not unfortunately determine the scope of the right and may create complex systems of partial ownership where derivative works are based on another party's prior effort.[56]

It is an important concept to note as many believe that the 'emergence of new, digital technologies signals a potentially radical shift of who is in control of information, experience and resources'.[57] It may also account for other modes of acquisition such as accession or joining, mixing or blending.

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[54] Locke *Second Treatise of Government?* 1690
[55] Rose *Possession as the Origin of Property* (1985) 73
[56] Gray (n27) 293
[57] Croteau and Hoynes (n13) 322

PART II

Private Property, the Commons and Public Domain

Regardless of its justification, the acknowledgement of certain rights and entitlements underlie the notion of private property which grants an individual entity a claim to certain resources to the exclusion of others. The costs and benefits relating to these resources are therefore concentrated and the individual entity exploiting them simultaneously bears the costs associated with its preservation and any benefits sacrificed.[58]

In contrast, there is also the concept of 'the commons', which The Oxford English Dictionary describes as 'any resource in joint use and possession, and enjoyed equally by a number of persons, to whom in essence that resource is free'.[59] It should be pointed out that 'free' in this instance means that any member of society has a right of access to that resource without having to obtain permission from anyone else or that if any sort of permission is required, it will be granted in a neutral way.[60] This also infers that even in a commons, some form of regulation may still be present.[61]

A fundamental consequence of finite resources held in common is that they may be exploited by any single party, whilst the cost of this exploitation is borne by everyone.[62] This disparity between the right of use and the cost and duty of preservation without any added incentive to preserve the resource is likely to lead to its mismanagement and exhaustion. This phenomenon has been labelled the 'Tragedy of the Commons' and forms the basis of much criticism against the unregulated

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[58] Krier (n26) 3
[59] *The Oxford English Dictionary,* 2nd ed., vol. 3, prepared by J. A. Simpson and E. S. C. Weiner (Oxford: Clarendon Press; New York: Oxford University Press, 1989), 567. See also Lessig *The Future of Ideas* (2011) 19
[60] Lessig (49) 19
[61] Gray (n27) 268 fn 4
[62] Chander and Sunder *The Romance of the Public Domain* (2004) 1338. See also Krier (n26) 141

sharing of resources.[63] Accordingly, it is acknowledged that physical, rivalrous resources in particular need to be controlled since a finite commodity which is open to all runs the risk of being depleted by unsustainable and uncontrolled consumption.[64]

Resources can also be held in a limited access commons, which takes the form of a commons to all who are party to it, but resembles a privately owned resource to those who are excluded from it.[65] Resources that can be held in common in smaller groups (for instance among friends or family) may however need to be formally administered in other scenarios (such as tribes or cities).[66]

The mere fact that a resource is not privately owned does not mean that no resources or labour were invested in its creation and governance. By example, public roads, beaches and creative works in the public domain form part of a commons. Resources that are in the public domain fall outside the parameters of private or state ownership and are resources that can be commonly enjoyed. In the field of intellectual property, works fall into the public domain if the recognised intellectual property rights do not apply, have expired or been forfeited; and others are free to use, adapt or reproduce it. Any distinction between the public domain and commons which may have been relevant insofar as tangible resources are considered, therefore fade to a blur in the case of intangibles.[67]

As with the case of new media ventures, it is also very possible for an individual party to profit from an activity which is based on, or uses, a resource found within a commons. Differing levels of wealth, knowledge and ability among users may also enable some users to exploit the

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[63] Hardin *The Tragedy of the Commons* (1968) 1243. See also Lessig *The Future of Ideas* (n60) 21
[64] Lessig *The Future of Ideas* (n60) 21 and 115
[65] Krier (n26) 7
[66] Lessig *The Future of Ideas* (n60) 115
[67] Boyle (n1) 239

commons more than others[68] which may also affect the nature and accessibility of the resource in question.

A good example of how a single user's use of a communal resource may affect others' enjoyment of that resource in the new media era is the Centre for Copyright Information's[69] Copyright Alert System which proposes a 'six strike anti-piracy' scheme by which service providers send out six warning messages to internet users downloading copyright material without authorisation, where after their connection speed is drastically decreased if such activity continues.[70] Users downloading such content in public wifi areas may therefore impact the connectivity of other users who share the same connectivity speed within this space. Although many view the digital resources and connectivity as non-rivalrous, this is one instance in which the risks relating to a commons is in fact applicable. In most cases, however, it would be fairly easy to argue that digital resources are not rivalrous or finite, and increased use may have the opposite effect by actually increasing the size of the overall network or resource by attracting more users and making the network more valuable. This theory aligns with a concept known as the 'network effect' in which the value of a particular piece of knowledge increases exponentially as the number of entities that have access to it increases due to the fact that it gets pooled with other information and knowledge.[71]

The dividing line between private ownership and the commons is not always constant and eternal and the two systems may even co-exist in a symbiotic relationship.

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[68] Chander (n62) 1331
[69] The Centre for Copyright information is a partnership between the Recording Industry Association of America, Motion Picture Association of America and major internet service providers in the United States.
[70] See http://readwrite.com/2012/10/12/file-sharers-get-ready-for-copyright-violation-warnings
[71] Garcia-Garcia and Alonso de Magdaleno (n3) 4

In his well-known treatise on the evolution of property rights,[72] and again in his 2002 follow up thereto,[73] Demsetz provides examples of several junctures in history where social, economic or political changes affected the way property was allocated and ownership defined. Notably, he uses the transformation of land rights to demonstrate how externalities may cause a system of collective ownership to transform into a system of private ownership and *vice versa*.

At the start of the Stone Age, low population levels and primitive technologies combined with man's dependency on hunting and foraging made collective ownership more feasible than the private allocation or division of resources. Later, technological advancements led to improved weaponry and more efficient hunting which in turn allowed population levels to increase. Increasing population levels required even more efficient methods of securing food and similar advances in stone implements then led to primitive farming. Immediately a particular parcel of land became valuable and the effort of defending each portion of land led to one of the first forms of privatization.

Similarly, tribes who previously treated hunting land as a commons and whose modest subsistence hunting naturally limited their demand, were later confronted with the commercial trade of fur introduced by European settlers. As the demand for fur, and the rewards from hunting increased, so did the rate of hunting, resulting in a scarcity of furs, increased competition and wasted costs associated with negotiation and dispute resolution over available hunting areas. The notion of selling products obtained through one's own labour further established the notion of claiming individual entitlement and profit.

This increased demand for a communal resource ultimately leads to overhunting and exploitation, without any concomitant duty to preserve it. In this scenario, the concept of private ownership developed in response

[72]Demsetz, *Toward a Theory of Property Rights* (1967) 57
[73] (2) Demsetz, *Toward a Theory of Property Rights II, The Competition between Private and Collective Ownership (2002)* S658

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to the exploitation of communal land and a need for the efficient use of this finite resource. Allocating parcels of land to individual groups allow a level of control over animals found within the allocated territory and ties the power to exploit or preserve the resource to an individual or group who simultaneously bears the costs associated with these acts.[74]

Farming allowed for storage and excess, which in turn spurred specialization and trade between groups, allowing privatization to family level. However, as trade expanded across greater distances, the cost of such trading activities increased. Accordingly, private ownership and specialization was substituted for cooperatives which in themselves may resemble a limited commons. This need for collaboration and the realisation of interdependence is again seen during the industrial revolution and perhaps the intellectual property age, both historical economic turning points calling for society to revisit the organisation of private property.[75]

At this point, it becomes clear that open and private property systems need not always be on two opposing ends of a timeline. The symbiotic nature of private ownership and openness is illustrated by Boyle in a hypothetical example of colonialists who need to implement a mixed system of private ownership and open land use to cater for the delineation of cultivated fields, whilst allowing anyone passage and pasture throughout the land.[76] But again, updated technologies (and possibly the same would be true for environmental changes) with new benefits and opportunities introduce new threats and costs to which the organisation and management of this dual system would need to adapt.[77] This may cause one of the systems to become more favoured than the other in a

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[74] Krier (n26) 141
[75] Parr n20) 5-6. See also Waitley *Empires of the Mind – Lessons to Lead and Succeed in a Knowledge-Based World* (1995) 8
[76] Boyle (n1) 83
[77] Boyle (n1) 84

particular set of circumstances and typically the creation and implementation of laws to artificially create this desired system.[78]

These examples illustrate several important points.

(i) The allocation of cost and benefit

As a starting point, it holds that where finite resources are held in common, the costs of a single member's actions are borne by all, whilst he benefits of this action are not necessarily shared. This phenomenon has known as the 'Tragedy of the Commons'[79] has already been discussed, but even early philosophers such as Aristotle and Aquinas understood that common ownership promotes inefficient utilization and overuse.[80]

In contrast, private ownership denotes the situation where an individual entity is entitled to a separate portion of the resource to the exclusion of others and both the costs and benefits contained in this portion are attributed to that entity.[81] In other words, the power to exploit or preserve the resource is assigned to an individual or group who simultaneously bear the costs associated with these acts and are therefore more likely to act with a greater sense of responsibly and consequence.

As far as tangible assets are concerned, ownership is therefore seen as an effective means of peacefully and equitably managing its use and exploitation.

(ii) Administrative costs and the role of Government

Another aspect which comes to light is the administrative costs of having to negotiate with other parties who have a competing interest in the

[78] *Ibid*
[79] Hardin (n63) 1968
[80] Krier (n26) 141, fn 8
[81] Krier (n26) 141

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common resource. Through the allocation of autonomous portions to an individual or group, this cost is either eliminated or significantly decreased.[82]

In a commons based system where use or development of a resource occurs at a modular level, there may be some point at which centralised co-ordination becomes necessary to achieve a common goal. It is believed that even the election of this central authority and the rules which they apply can emerge in a similar fashion and by community agreement,[83] but some believe that more complex systems are more likely to be determined by intentional design.[84]

Contrary to the theory that social contract can decide the allocation of property, writers such as Riker believe that the generation of property rights is in fact a creation of the state, who permit private entities to control resources that would otherwise have been state-owned or state-controlled, for the purpose of ensuring efficiency and accumulating tax income.[85] Perhaps not clearly stated in these examples, is the reality that at some point, an authoritative body assumes the power to formalise rules and determine disputes whereby the assignment of property takes place. In time, this authority may even assume the power to grant property rights and plays a significant role in the enforcement and regulation of property rights.

This is particularly evident in our present intellectual property systems that are administered at both a national and international level. For the moment, new media may not yet be regulated to the same degree, but this is merely a function of bureaucratic systems not being able to readily adapt to such a fast-changing and unchartered environment.

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[82] See Krier (n26) 141, 149-150 and Hume, A Treatise of Human Nature, Vol 3, Part 2,7, at 538
[83] Boyle, 186
[84] Krier (26) 18, 156
[85] Riker and Sened (n41) 952

(iii) Transformation resulting from changes in external factors

Possibly the most important point to grasp in these examples is that a property system is dynamic[86] and will remain in one form as long as the benefits of such a system outweigh the cost of producing and maintaining it.[87] As a change in circumstance make certain externalities more costly to bear, a need arises for a system that once again restores this balance.[88] In this instance, the establishment of a private property system would only occur if the perceived benefits associated with such a system exceed the cost of not having it.[89] It is noteworthy on this point that whilst the internet and new media has the ability to transform present constructs of intellectual property to allow for more openness and flexibility, economic and political forces have been pulling in the opposite direction by extending proprietary rights and protections on intangible resources.[90]

International trends in intellectual property law have also been moving towards a proprietary system.[91] This is dangerous as a narrower view on intellectual property rights in a world where technology demands greater flexibility may render it redundant in the long term. Attempting to prevent technology from disrupting legacy business methods is not only inefficient to society, but ultimately restricting for these business methods and industries being as they too will be prevented from benefitting from these advancements.[92] Legislatures also risk losing credibility if laws are not made to reflect societal norms.[93]

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[86] Gray (n27) 296
[87] Riker and Sened (n41) 953
[88] Demsetz (n73) S656
[89] Demsetz (n72) 350
[90] Croteau and Hoynes (n13) 322
[91] Boyle (n1) 200
[92] Boyle (n1) 199
[93] Lessig (n60)

The Internet as a Collaborative Information Commons

The juxtaposition of proprietary content in digital form with the 'openness' or ability to access and adapt it, which Web 2.0 facilitates, creates an interesting scenario which can perhaps be described as a type of collaborative information commons.

According to Lessig, the internet forms an 'innovation commons' through both its technical infrastructure and a set of norms that have been inspired by its initial developers, but developed organically by its users.[94] This interdependence of the infrastructure, users and content is a characteristic of this commons[95] or as Benckler described it, an 'experiment in peer-to-peer cultural production'[96] and it may be that and that those who prosper in the future will be those that leverage this system of cooperation rather than competing with other stake-holders and trends.[97]

This is quite a departure from our traditional understanding of commercial endeavour and blurs the distinction between consumers, suppliers and product in the traditional sense.

Until now, a commons was rare, inefficient, open to abuse and hard to sustain.[98] As the primary 'resources' in the internet age are information, knowledge and ideas, this commons is entirely non-rivalrous, which in itself requires us to reassess our understanding of this concept. Unlike a traditional commons which typically has a resource which is open to consumption and exhaustion, the 'information commons' is constantly developing more resources and expanding, creating and sustaining value.[99]

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[94] Lessig (n60) 23 See also Noonan *Internet Decentralization, Feedback, and Self-Organization* (1998) 188–89, 198 and Boyle *Politics of Intellectual Property: Environmentalism for the Net?*,*Duke Law Journal* 47 (1997): 87
[95] Parr (n20), 5
[96] Boyle (n1) 194
[97] Parr (n20), 5
[98] Lessig (n60) 85
[99] Boyle, 192, in which he also notes Carol Rose's labelling of this phenomena as the 'Comedy of the Commons'. See also Lessig, (n60) 97

Although there is no empirical evidence to prove that the 'openness' or 'commons' nature of the internet is directly attributable for the innovation which has occurred in this medium, no one can argue against the fact that the internet has created a world-wide commons of decentralized innovation, information and ideas, opinions and creative endeavours which is essentially open and free. Whether it is one large commons or the composite of several modular commons-type ecosystems, it allows for parts of it to be transformed into something of value and is in either form, free of the threats and constraints associated with a traditional commons.[100]

The internet offers the possibility of new products, new means and channels of distribution, new markets and new forms of participation, yet there is very little on it which is not based on media which is already available in some format and produced by another.[101] For this reason, experts such as Lessig believe that in the next century, the most successful individuals and companies will be those who draw value from this openness, [102] but the parameters of the exclusive rights which they may claim are extremely blurred.[103]

In an attempt to define this value, the tendency is to resort to recognized forms of intellectual property that are in essence closed systems of private ownership. But new media ventures have a peculiar relationship with intellectual property in that it is both the premise on which new media ventures are founded as well as its major output. By example, the photo sharing application, Instagram, has built a community of users that create and share content which is subject to their individual copyright. For this application to evolve into a profitable or at least sustainable venture, it either needs to start selling certain add-on products (such as additional filters or effects), charge subscription to users, commodify access to its

[100] Lessig (n60) 21
[101] Lessig (n60) 13, 122-134
[102] Lessig (n60) 85
[103] Lessig (n60) 13

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database of users or their submitted content. This however, could negatively affect its popularity as a previously 'free' service in which users did not have to sacrifice any privacy or intellectual property rights in order to use the application. Once a new media creation of this nature is monopolised, it runs the risk of losing its ability to develop organically, which is key to its scalability. In some cases, the very open foundation upon which it was established is disrupted by changes aimed at creating an income stream, causing a change in character that could threaten its entire existence.[104]

At a broader level, new media users have proven to be well informed of the balance between proprietary content and 'openness' and have on several occasions successfully campaigned against legislation aimed at limiting the free and open access to information in favour of proprietary rights. A recent example is the overwhelming opposition to the Stop Online Piracy Act (SOPA) and the Protect IP Act (PIPA) by technology companies and the public that resulted in these bills to lose traction in US Congress.[105]

The inclination to monopolise and benefit from a successful enterprise appears to be an eventuality that cannot be removed from human nature. In the absence of any other method of compensation or reward, it seems that the exploitation of traditional forms of intellectual property will remain the default method of capitalising new media ventures, unless new rules are established to consistently attribute recognition and value to such ventures.

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[104] See Gray (n27) 272 commentary on how the insulation of a resource may in some instances alter the nature of the resource itself.
[105] Newman, Jared *Top-Level Domain Name Grab: ICANN Reveals Results* (2012)

PART III

Intellectual property: a legal and commercial perspective

Presently, the most authoritative bodies dealing with intellectual property are the World Intellectual Property Organisation (WIPO) and the World Trade Organisation (WTO) and their definition of intellectual property and intellectual property rights direct the rules adopted by their members.

WIPO broadly defines Intellectual Property as both 'creations of the mind' and 'the legal rights which result from intellectual activity in the industrial, scientific, literary and artistic fields' that aim to protect the 'rights resulting from intellectual activity' in these fields.[106] WIPO further emphasizes that 'these rights do not apply to the physical object in which the creation may be embodied but instead to the intellectual creation as such'.[107] It then classifies different types of intellectual property rights that qualify for such protection, namely patents, trade marks, copyright and industrial designs.

The WTO offers a similar definition of intellectual property rights, describing it as the exclusive rights afforded to creators over the 'creations of their mind' usually for a limited period of time.[108] It further divides such rights into two main categories, namely copyright with related broadcasting / performer's rights, and industrial property that it specifically describes as comprising of distinctive signs, namely trade marks and geographical indications, patents, designs and trade secrets aimed at encouraging innovation.

A third definition of intellectual property is contained in the Agreement on Trade-related Aspects of Intellectual Property Rights, also referred to as the TRIPs Agreement, or simply 'TRIPs' that applied to all WTO members. It refers to intellectual property rights as private rights with underlying

[106] WIPO Intellectual Property Handbook (2004), 3 Available at http://www.wipo.int/export/sites/www/about-ip/en/iprm/pdf/ip_handbook.pdf
[107] *Ibid*
[108] World Trade Organisation Frequently Asked Questions about TRIPs Available at http://www.wto.org/english/tratop_e/trips_e/tripfq_e.htm#WhatAre

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public policy objectives[109] and lists individually defined categories of intellectual property.[110]As with the WIPO and WTO definitions, these categories include copyright and related rights, trade marks and geographical indications, industrial designs and patents. TRIPs, however, has additional provisions relating to integrated circuit lay-out designs and the protection of undisclosed information. It also deals with anti-competitive practices in contractual licenses and sets basic standards to which all signatories (including all members of the WTO) need to comply when administering and enforcing intellectual property rights.[111] It may be noted that there are other international treaties dealing with these 'traditional' forms of intellectual property, but that TRIPs has the most comprehensive list of members and is the only treaty with trade-related implications, effectively forcing members to maintain its minimum standards.[112]

It is crucial to understand the rationale behind intellectual property rights to understand how these forms of intellectual property came into being.

One justification for granting a monopoly over a particular creation stems from Locke's labour rationale which has already been discussed and entails incentivising and/or rewarding the creator or author for the investment of effort, skill and financial resources into the research, design, creation and development of an idea, creative work or innovation and sharing it. This incentive is particularly necessary for intellectual property and resources that are costly and difficult to develop and produce, but easy and cheap to replicate.[113] This may even be true for new media ventures and resources that are relatively easy and cheap to create and produce, and as easy and cheap to replicate, but there is little evidence on which to test this assumption.[114] Indeed many intellectual property norms

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[109] Preamble and Article 7, TRIPs
[110] Article 1.2 and Sections 1-7, TRIPs
[111] *Ibid*
[112] Correa, Trade Related Aspects of Intellectual Property Rights: A Commentary on the TRIPs Agreement' (2007) 3
[113] Boyle (n1) 4
[114] *Ibid*

are based merely on a principle Boyle calls ‘maximalism” which holds that as the cost of replication decreases, the concomitant proprietary rights protecting the original resource need to increase proportionally to ensure an optimum balance of innovation and access.[115] Whilst this may hold some truth where large-scale production is expensive, it remains untested in the new media space where production may not be as capital intensive.

But encouraging innovation is in the public interest and so this statutory monopoly is only granted for a limited period after which the intellectual property behind the innovation or work falls into the public domain and may be applied or developed by anyone. To achieve this balance between the creator’s knowledge which has more individual value whilst undisclosed and public interest which would grant access to this knowledge, incorporeal creations are recognised as ‘property’ at the point of disclosure, by laws that simultaneously determine its scope and duration, thereby creating a balance between these competing interests.[116]

The notion of unfair competition, which features prominently in intellectual property matters, may have its foundation in common law, but does fall within this rationale in that there is agreement that the originator or rights holder’s entitlement to benefit from its effort and investment should be acknowledged and protected against the unscrupulous actions of competitors. Within commons based internet user communities, one often finds norms and rules of etiquette naturally develop and evolve over time setting the bar for fair use and reasonable behaviour within a particular group .

In the case of trade marks and geographical indications, this monopoly can be extended indefinitely, but one should keep in mind that the public interest aspect here is to protect consumers from deception or confusion regarding the origin of goods or services and that the goodwill derived

[115] Boyle (n1) 198
[116] Boyle (n1) 184

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from the use and promotion of a distinctive mark is only secondary to this objective.

A peculiar form of intellectual property which challenges this rationale is the concept of trade secrets, which is specifically mentioned in the WTO and TRIPs definitions and arguably falls under the class of 'intellectual creations' referred to in WIPO's definition. Although recognised as a form of intellectual property, there is no specific legislation regulating such information. It appears to be a class of intellectual property with a basis in contract law which has emerged organically through business dealings.

This prompts an interesting question as to the application of intellectual property for commercial purposes and the influence of business on the evolution of intellectual property rights which forms the basis of this dissertation. If intellectual property is to form the basis on which new media ventures are valued, one must therefore consider how intellectual property is viewed and accounted for commercially.

From a business valuation perspective, intellectual property is classified under two terms which denote the nature of the economic benefit that flows from that particular creation or intellectual investment.

The first is the notion of 'intellectual capital', which denotes the long term value attributed to a company's human capital, supplier relationships, structural effectiveness, regulatory approval, and brand equity which may signify its market presence and customer loyalty.[117] Some also claim that it is a value which recognizes the strength of a company's business methodology, revenue model, corporate strategy, management expertise, prospective earnings and growth and therefore encompasses more than simply the sum total of the company's industrial property and copyright.[118] In practical terms, it is generally calculated as the difference between a company's market value and the cost of replacing its assets.

[117] Akdemir and Akpinar (n21) 332-33
[118] *Ibid*

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The second notion is referred to as 'intellectual assets', which Garcia calls 'separately identifiable non-monetary assets that cannot be seen, touched or physically measured, which are created through time and/or effort'.[119] These assets can be in the form of legal rights such as patents or trade marks, but may also be described as 'competitive intangibles', such as know-how, trade secrets or goodwill.[120] These assets could be related to certain components of a company's intellectual capital, but must have the ability to generate income in the short term in order to be classified as such.

One should also be aware that there may be immeasurable factors that impact an organization negatively such as weakened legacy structures, external economic or political factors, increased competition or the threat of brand revolt that may be described as 'intellectual liabilities'. When determining the value of a company's intellectual capital, these factors should also be taken into account.[121]

It appears that whilst intellectual property is traditionally specified and contained in international instruments which form the basis of national legislation aimed at the creation and enforcement of such rights, the impact of business in widening this traditional view of intellectual property rights is undeniable. This is supported by the fact that the main instrument dealing with the harmonisation of intellectual property laws is purportedly aimed at reducing distortions and impediments in international trade.[122] It also suggests that traditional views on the classification of intellectual property may need to be updated to account for the constant evolution of business in the digital information age.

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[119] Garcia-Garcia and Alonso de Magdaleno (n3) 8
[120] *Ibid*
[121] Abeysekera, *Accounting for Intellectual Assets and Liabilities* (2003) 5
[122] Part I, General Provisions and Basic Principles, TRIPs

The need to value intellectual property

There are numerous reasons one would need to value the intellectual property component of a going concern. The purpose of the valuation may influence the method and variables considered for the valuation, but may also impact the value ultimately attained.

Such is the influence of the reason for the valuation on the exercise itself, that the International Standards Organisation's [123] guide for valuating brands, ISO 10668:2010, requires the purpose of any brand valuation to be declared, along with the intended use, audience, independence and position of the party conducting the valuation.[124]

This chapter outlines a few of the most common instances in which intellectual property valuations may be necessary.

(i) Intellectual Property as a major component of Going Concern

In the last few decades, there has been a continual increase in intellectual property as a percentage of the total Fortune 500 market value.[125] An analysis of the Fortune 500 companies shows that in 1975, sixty percent of their market value was represented by tangible assets. Twenty years later, this percentage had fallen to just twenty-five percent. This statistic may be slanted when one considers that the first thorough intellectual property valuation was allegedly only done in 1995 by Scandia (a Scandinavian insurance and financial service company) and that prior to this, not much consideration was given to intangible assets on an entity's balance sheet. Since then, this percentage has fallen further and marks a trend that looks to continue.[126]

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[123] ISO, The 'International Organization for Standardization', is a worldwide federation of industry specific, national standards verification bodies.
[124] Par 4.1, ISO 10668:2010
[125] Chaplinsky *Methods of Intellectual Property Evaluation* (2002) 1
[126] Chaplinsky (n125) 2

Drawing on this information, it is interesting to note that during 2003, IBM made twice as much revenue from providing open source services as it did from intellectual property despite the fact that between 1999 and 2004 it created more patents than any other US company.[127] Internet activists like Benkler propose that this is a pattern we will see repeated.[128]

These trends are amplified by the fact that intellectual property and knowledge derived through open source channels does not merely comprise a larger portion of an enterprise's value, but is often a 'value-enabling' asset which should be capitalized.[129] It is also relevant to all industries and not reserved for technology or service companies. In fact, both profit and not-for-profit enterprises need to value their intellectual property as they are equally accountable to shareholders, stakeholders and donors.

Providing an accurate account of intellectual property may be crucial to determine the fair value of an enterprise prior to a merger or acquisition or to conclude bankruptcy and winding up procedures. A comprehensive valuation may also be necessary to raise finance, pledge intangible assets as security or in anticipation of a public listing or share offering. This is particularly relevant in the new media or online environment, where venture capitalists and banks are often approached by entrepreneurs for start-up capital or second round funding prior to expansion and are achieving more prominence on public exchanges.

(ii) State requirements regarding financial reporting and tax calculation

Although there is no single instrument governing financial reporting standards internationally, rules and principles are contained in national variations of Generally Accepted Accounting Practices (GAAP) and International Financial Reporting Standards (IFRS). GAAP is an

[127] Benckler (n2)
[128] Benckler (n2)
[129] Corrigan *Managing Value in a Shrinking Economy: the IP Audit* (2009)

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internationally accepted framework of standards, conventions, and guidelines governing financial reporting, whilst IFRS, formerly referred to as International Accounting Standards (IAS), are international standards set by the International Accounting Standards Committee (IASC) and applied in most jurisdictions.

These basic principles require transparency, consistency and accuracy in financial reporting and apply equally to the representation of intangible assets, such as intellectual property and goodwill, in financial statements. They typically also require a disclosure of how these values were derived.

For new media ventures, instruments such as the Sarbanes-Oxley Act (SOX)[130] may also apply. Following corporate scandals in the nineties which led to the defrauding of shareholders, SOX requires listed companies to conduct quarterly reviews of key operational and audit controls. Listed new media ventures may therefore be required to conduct a similar review of intangible assets which form the basis of its operations and risk.

Governments may also wish to attribute value to intellectual property assets as an incentive for information sharing. As already established, information has higher individual value when kept secret, but higher societal value when it is shared.[131] Governments should therefore promote information sharing for the overall economic and societal benefit is may have.

At a more basic level, accurate reporting of a company's intellectual property and goodwill allows clarity on its actual value for capital gains and income tax purposes, industry analysis and regulation. Governments may also gauge a company's investment in research and development when considering certain tax exemptions or incentives.

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[130] Sarbanes-Oxley Act 2002is a US federal law which has influenced various international companies and new media ventures based in the United States.
[131] Boyle (n1)

(iii) Intellectual property valuations as a source of information for corporate strategy and decision making

All companies, but intellectual property driven enterprises in particular, may require information on the absolute and relative value of its intangible assets to justify or prioritise certain investments into research and development activities.

From a management perspective, such information may also be useful for comparison and benchmarking purposes, to focus internal training and to direct corporate restructuring and expansion initiatives.

One of the main problems with intellectual property is that it requires policing and enforcement to retain its value. An estimation of the value placed on individual intellectual property assets may be useful in deciding which items justify further policing or enforcement. It may also guide the decision on whether to preserve or expand one's trade mark, patent or registered design portfolio or to let certain registrations lapse. The value placed on one's portfolio in its entirety further needs to be altered to account for any registered rights that have expired, or to account for the depreciation on registered rights that are only valid for a limited period.

(iv) Intellectual property valuations as a guide during negotiations

A well-informed understanding of the role and value of intangible assets may strengthen one's position in technology transfer negotiations, licensing and franchising arrangements.

Where a company has made use of any traditional knowledge, it may offer a means of determining how the company is benefitting from the traditional knowledge and to calculate possible compensation to certain communities or peoples in terms of a benefit sharing scheme.[132]

[132] Chander (n62)

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Intellectual property valuations may also be used in support of lobbying for the enactment of new intellectual property laws.[133] This is particularly relevant in the new media environment which is constantly evolving and often has legislative amendments lagging behind technological developments. In some instances, outdated laws may affect the lawfulness and viability of a new media venture and the ability to attribute tangible benefits and a measurable value to the venture may be crucial to successfully lobby for legal amendments.

(v) Intellectual property valuations for the purpose of calculating damage awards or security for costs in litigation proceedings

The value of intellectual property is often a key consideration when deciding whether to institute legal proceedings and in selecting the most appropriate forum for dispute resolution.

The need for security may arise when funding or loans are applied for or during litigation proceedings where security for costs needs to be put forward in order to lodge infringement or other proceedings. Providing a quantitative estimate on the value of one's intellectual property portfolio may be necessary to offer it as security in these instances.

In cases of infringement or unlawful competition, a quantifiable assessment of the harm suffered as a result of another party's actions may also be required.

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[133] Lessig (n60)

The basics of business valuation

In its most simplistic form, the components of a business venture can be divided into fixed and current assets and liabilities with any value exceeding the market value of these assets being loosely defined as 'goodwill'.[134]

'Fixed' assets and liabilities account for any items which will remain on the financial records for more than twelve months. Typically, 'current assets' refers to cash reserves, accounts receivable within the next twelve months, and inventory,[135] whilst 'current liabilities' denote all financial obligations not yet settled, but relevant to the current financial year. 'Working capital' is the difference between current assets and current liabilities and describes that which the business has to operate on in the short term and is referred to as the 'liquidity' of the business.[136]

Whilst the value of a business may be considered to be the balance of its assets and liabilities, investors may be more interested in its long term financial sustainability measured by its expected return on investment (ROI) based on factors such as turnover, business strategy and market position that are all intertwined.

Both GAAP and IFRS define intangible assets as non-monetary assets which are without physical substance, yet identifiable (either being separable or arising from contractual or other legal rights) and controlled.[137] Simplified, intangible assets are non-physical assets that do not have a fixed cash value, but rather a determinable value once they are identified. It must also be controlled by a particular entity to which all benefit and value will be attributed or at least controls access to the asset

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[134] Freno, *Trademark Valuation: Preserving Band Equity,* 1057
[135] International Accounting Standards IAS 1.61, IAS 1.66, IAS 1.69
[136] Parr (n20), 9
[137] See US GAAP (ASC 805, Business Combinations, and ASC 350, Intangibles - Goodwill and Other) and IFRS (IFRS 3(R), Business Combinations, and IAS 38, Intangible Assets). This definition also correlates with the definition of 'Intangible asset' in par 2.3 of ISO 10668:2010.

or the benefits flowing from it. This value could flow from the asset itself or as a result of its use in conjunction with other assets.

The accepted definitions of an asset is succinctly described as a legal right or resource with economic value that an individual, corporation or country owns or controls with the expectation that it will provide future benefit.

From this definition it is clear that, like tangible assets, intangibles should

- be identifiable so their value can be measured with reliability;
- have a probable future cash flow (which itself should be reasonably determinable); and
- be controlled by the entity to whom these benefits will accrue.[138]

It is therefore crucial to consider the identification and classification of an asset and the aspects surrounding its inherent value which is based on its ability to generate measurable income for a particular party.

The International Organisation for Standardisation's Management Standard ISO 10668:2010, that deals with the valuation of brands, defines an asset as 'a legal right or organisational resource which is controllable by an entity and has the capacity to generate economic benefits'.[139] It also mentions that the valuation of a brand shall consider the manner in which it generates economic benefit.[140] This economic benefit is not limited to cash flows, but includes brand recognition, brand relevance and efficiencies created through the alignment of public communications through the brand. Related cost-savings and the impact on consumer behaviour and loyalty is seen to have a positive impact on risk reduction, profitability and long term growth.[141] One should be mindful of these basic

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[138] Garcia-Garcia and Alonso de Magdaleno (n3) 7
[139] Par 2.1, ISO 10668:2010
[140] Par 6.2.2, ISO 10668:2010
[141] Par 6.2.2, ISO 10668:2010

principles when considering the challenges and techniques associated with conducting valuations on intellectual property and new media.

Traditional valuation methods and their applicability to new media ventures

Intellectual property valuations should centre round the assessment and measurement of the contribution made by intellectual property assets to the entity's operating profitability and forecasted income-generating capacity, by the relevant intellectual property relative to other business drivers.[142]

The methods by which assets and therefore, intellectual property assets, are typically valued can be classified into three main categories. These include approaches that measure the income generated by the asset, the cost of creating or replacing it or its market value relative to comparable transactions involving similar assets.

These methods have recently been entrenched in the international ISO standard 10668:2010 for monetary brand valuation. Although this standard applies to brands and has not yet been formally adopted in South Africa, it is expected that intellectual property valuations and transactions with international partners will inevitably be based on the principles set out in this document. These principles may even be used as a precedent for similar standards dealing with other forms of intellectual property.

Essentially, intellectual property valuations are considered on both quantitative calculations (based on the aforementioned methods) and a qualitative assessment to support and justify the assumptions on which these calculations are based. A noteworthy aspect of ISO 10668:2010 is that it introduces the requirement of not only considering behavioural and financial aspects, but also legal aspects surrounding the validity of certain

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[142] Momberg, D *Cross-border: The Materiality of Intangibles: IP Lessons from September 11 2001 from the non-metropolitan perspective* (2011) 276

intellectual property assets.[143] This makes sense, as legal rights essentially determine the existence and value of an intangible asset to a particular entity.[144]

The standard does not prescribe any particular method or combination of methods by which to value intangible assets and does not solve any of the problems previously experienced whilst trying to apply a monetary value to an intangible, and often immeasurable, asset. But, it does confirm that brands should be valued using the approach which is best suited to the purpose of the valuation, the economic benefits flowing from the brand and particular characteristics unique to the brand.[145]

As such, the valuation of intellectual property is done in one of three basic methods of valuation applied to businesses in general. This chapter describes each method and considers it's suitability to the valuation of new media ventures.

(i) Market approach

The market approach considers comparable transactions which reflect the exchange of value between two willing parties in a similar arm's length transaction.[146] It is basically an estimation of a reasonable price which could be realized if an asset were to be sold by considering the value of similar transactions and adjusting previous prices paid to account for factors that are unique in the present situation. This is usually done by applying multiples to the values under consideration.

The use of this method therefore depends on having an active market and access to data on past transactions between independent parties involving comparable assets or business ventures.[147] It may also be necessary to

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[143] Art 3.6 and Art 6.3, ISO 2010:10668. See also Sellin *Brand Valuation: Legal Analysis Now Standard* (2011)
[144] 7 (n143)
[145] Par 5.1, ISO 10668:2010
[146] Chaplinsky (n125) 7, Freno (n134) 1061
[147] Parr (n20) 15

assess certain trends within the market segment and to consider current and future volumes and margins.[148] It may therefore be the most effective method of accounting for external factors influencing the valuation.

In many industries, such information can be found on statutory disclosures made by competitors or subscription-based, commercial databases and adjusted according to strategic considerations, industry trends, timing and synergies apparent in each transaction.

This may however be very difficult for new media ventures where there are seldom active markets or comparable transactions to consider. Even US GAAP permits the revaluation of the fair value of intangible assets other than goodwill, but since it requires reference to an active market for the specific type of asset, this is rather uncommon.

In addition, the transactions that do take place are seldom between parties who are independent or without ulterior strategic considerations. Another problem is that the price at which the comparative transaction was made typically incorporates unique circumstances of the parties to that transaction, which may not be the case in the matter under review. It may also be difficult to obtain information relating to the sample transaction which may be confidential or difficult to process without access to raw data and background information.[149]Comparable transactions relating to both new media ventures as a going concern, and particular intellectual property assets which can be exploited by such an enterprise, may be scarce or non-existent.[150]

The market approach, by definition, further requires an assessment of various market related factors which affect the value of the intellectual property or going concern being valued as the industry or sector within which a particular valuation is done greatly influences the factors which

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[148] This is proposed in par 6.1, ISO 10668:2010, when valuing brands.
[149] Parr (n20), 15
[150] Sellin (n143)

need to be considered when doing the valuation. As such, comparable transactions within the same market should ideally be compared.[151]

This may be possible for new media ventures once there is more than one player in a particular field as new media ventures seldom unique in terms of their input, service offering or revenue models. As the internet expands, it can also be reasonably expected that new media ventures will keep increasing in number and establish a greater pool of information from which to draw this reference. For truly novel and unique ventures however, there will always be a lack of useful information on which to base this approach.

Profitability and market share should also be included in this equation as certain intangible assets (like a trusted and recognizable trade mark) can increase the relative value of a business when compared to its competitors. A greater market share can also lead to certain economies of scale and profitability, which would be to the advantage of a larger competitor.[152] The value of a new media company can therefore be scaled according to its individual market share and effective use of its intellectual property assets to increase profitability.

Emerging technologies can also have a significant impact on the value of a business,[153] especially in the networked information economy, where stake-holders are continuously adapting to rapidly changing hardware, software applications and user preferences that may shorten the useful life of an asset. Emerging technologies should however be viewed in light of an entity's business strategy and access to such technology as it could have either a positive or a negative impact on a particular venture or business model.

Lastly, barriers to entry increase the value of a going concern and may be in the form of regulatory approval, state-granted licenses or the need for

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[151] Parr (n20), 18-19
[152] *Ibid*
[153] *Ibid*

significant capital investments. In the new media environment, the same can be achieved through the effective enforcement of intellectual property or the alignment with an established incumbent platform or network of users. An entity that has established or operates within an industry with high barriers to entry will be valued higher than the alternative.[154] It may also be the absence of such barriers which decreases the value of a particular new media venture. An example of this is the internet-based discount voucher schemes such as Groupon, MyCitiDeal and Daddy's Deals that all co-exist and together, have established a market for such services that did not previously exist. As they are not mutually exclusive in terms of membership, each additional venture simply grows this market rather than competes with existing schemes.

(ii) Cost approach

This valuation methodology accounts for the investment made in the development of the asset at the time it was developed, or alternatively, the cost of replacing it under present circumstances. [155]

Although it is possible to assign a financial value to the research and development expenditure relating to that asset, the obvious problem with this method is that it does not account for future cash flows, the lifespan or risks associated with the asset. Initial expenditures on the asset may also need to be adjusted with inflation, and the replacement value would need to take into account technological advancements made since its initial development.[156] This brings several assumptions and estimates into the valuation, which may affect its validity. Accordingly, this approach is often used merely as a starting point or alternatively, a measure of the consistency and reasonableness of valuations arrived at using other methods.

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[154] *Ibid*
[155] Chaplinsky (n125) 7
[156] *Ibid*

This method may be difficult to apply to a new media venture where the cost of developing the commercial venture, often in the form of volunteering or through the use of existing data or platforms, may not be quantifiable or be far less than the real value resulting from this effort. Traditionally volunteer activity is not reflected on financial statements and is not attributed any value. Contributions from third party developers and users would therefore also not be accounted for as there is no single source from which to determine the cost of development.

The cost method may therefore be ill-suited or too complex to apply to new media ventures,[157] unless it is sufficient to consider only the cash amount invested in a straightforward set-up.

(iii) Income approach

This approach uses a pre-determined rate to discount future economic benefits or 'cash flows' accruing over the remaining economic life of an asset into a present value.[158] This economic benefit may be in any form, including financial earnings or cost savings, typically measured as the relief from having to pay royalties to another party.[159]

There are several variables one needs to establish in order to derive a value from this method. One needs to be able to identify an income stream and forecast its future cash flows which require an understanding of the business, its potential growth, industry risks and opportunities. One further needs a fair estimate of the duration of the asset's useful life and an appropriate discount rate based on the industry and business model.[160]

Although it does not prescribe a particular method of brand valuation, ISO 10668:2010 associates the value concept with the income approach by deeming the monetary value of a brand to be based on future cash flows,

[157] Sellin (n143)
[158] Chaplinsky (n125) 3 and Parr (n20) 30
[159] ISO 10668:2010, See also Freno (n134) 1060
[160] Parr (n20), 30

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determined on earnings, economic profits and cost savings, over the useful economic life of the brand.[161]

Within this approach, there are different ways of assigning a value to a particular asset, and a combination of these methods is usually required to reach a reliable estimate, as individually, not all factors are accounted for and considerable variations in ultimate values may occur.[162] For intellectual assets, these methods include the relief from royalty method, the income split method and the price/volume method, which are briefly discussed below.[163]

The price premium or volume premium methods basically estimate the value of an intangible asset with reference to the price premium it demands or additional benefits it accrues from its relative market share. Both methods require a comparison with similar assets or ventures lacking the specific premium or market share and attribute the excess value to intangibles employed by the entity. These calculations should also account for any unrelated cost-savings or additional costs incurred to secure or maintain this advantage. These methods may also be aligned with 'income-split', 'excess earnings' or 'incremental cash flow' methods that aim to distinguish the portion of net present value which is not attributable to operating profit or specific tangible assets.[164]

It is also possible to assign a value to an intangible asset by discounting the cost saving of not having to pay a royalty for its licensed use, as a positive cash flow.[165] This method somewhat overlaps with the market approach in that the relevant royalty rate should be determined with reference to comparable license arrangements between companies with similar characteristics and size. Cost savings resulting from technologies

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[161] Par 4.2, ISO 10668:2010
[162] Sellin (n143)
[163] *Ibid*
[164] Par 5.2.2, ISO 10668:2010 defines these methods as applied to the valuation of brands.
[165] Parr (n20) 32

and processes may also be considered as contributing value to the enterprise.[166]

It is believed that this approach accounts for market conditions and future growth prospects whilst capturing the particular timing of the valuation. Furthermore, risks associated with the use of the asset or venture being valued that are not accounted for in the projected earnings are incorporated into the relevant discount rate.

It does however require data on revenue, associated costs, market risks and the economic life of the asset being valued or the entire venture in its present form. Such data may not always be accurate and is often based on assumptions. In the new media environment, the lack of precedents, recognised revenue models and unidentified market risks may make it very difficult to make reliable assumptions of this nature.

Although growth prospects usually increase the value attached to an intellectual property asset that would otherwise produce a declining or stable income stream,[167] new media ventures have a unique quality in that the costs associated with enforcement often increase proportionately with the popularity or success of the concept being valued. This may require certain adjustments to the discount rate used.

Considering the shortcomings experienced by the other two methods, the income approach has become the most common method for valuing intellectual property assets,[168] although it is not without criticism when applied in the new media environment.

Applying traditional valuation methods to new media

When new media ventures are valued, they are often given unrealistic valuations. A prime example is Goldman Sachs' recent valuation of Facebook at US$50 billion. This is twenty-five times the current revenue

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[166] *Ibid*
[167] Parr (n20) 19
[168] Sellin (n143)

for this start-up business that has no robust revenue model (it currently relies mostly on low-end advertising displays which is far weaker than for instance Google's search-related advertisements that often reach users who are at the point of transaction). Furthermore, it values the company much higher than established media ventures such as Yahoo and Time Warner, which is perhaps not realistic.[169]

Current financial statements are transaction measures, whereas the Facebook scenario illustrates how in a knowledge-based economy, much of the development and value creation precedes the actual transactions and the valuation is done prior to launch to enable funding for further research and design and to enable the venture to progress to the point at which tangible revenues can be realised.[170] The Financial Accounting Standards Board (FASB) does allow for the investment in software development to be capitalised once technical feasibility has been established.[171] Past this point, the capitalised value of the software is taken as the lower of the unamortised cost or net realisable value of its production cost. Current and future revenues flowing from this product are then amortised over the remaining estimated economic life of the product.[172]

This also offers an example of how different methods of valuation can be used as complements or in the alternative to obtain the most accurate and reliable value for software or a new media venture. Some characteristics that may influence the choice of method, its variables and the overall estimation of the enterprise's value are the following:

(i) The lack of barriers to entry and the multiplicity of potential competitors may force new media ventures to construct other forms of exclusion. One the other hand, free membership based ventures,

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[169] The Economist *Is Facebook overvalued at US$50 billion* (11 January 2011)
[170] Garcia-Garcia and Alonso de Magdaleno (n3) 18
[171] See Financial Accounting Standards Board (FASB) Statement 86 which relates to any software, whether developed internally, purchased, intended for sale or lease as a product or ancillary to a product or process.
[172] FASB 86. See also Aboody, David and Lev, Baruch *The Value Relevance of Intangibles: The Case of Software Capitalization* (1998) 162

such as the voucher schemes previously discussed, do not prevent members from signing on to other similar services and may benefit from the fact that similar ventures are educating users on the use of a new application and effectively extending the market each time a new competitor is established or an additional user signs on. The valuation therefore needs to account for user's familiarity with the new media application and the brand recognition or barriers specific to the individual venture.

(ii) Changing technologies and user preferences change particularly fast in the new media environment, and switching to a different application is effortless. As many new media ventures involve a critical mass of users to network, this preference for an updated application may cause several other users to migrate, but may also act as a disincentive for users to leave a network with which they have established ties with other users. New media ventures are also more vulnerable to technical threats such as hacking which are becoming more prevalent.

(iii) The threat of legal changes is present in the new media environment where new applications may initiate legislative changes that could affect the venture in a positive or a negative way. There is also uncertainty regarding enforcement in an untested environment and in instances where offenders may be online personalities that could be difficult to trace or cause jurisdictional problems. This may affect the value of the enterprise to potential investors.

A further problem with the valuation of new media ventures is the fact that they are by definition 'new' and completely dependent on user behaviour, which behavioural economics claims is not possible to predict as people do not always act in an objectively ascertainable rational manner.[173]

[173] Boyle (n1) 230

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The only measurable asset of any significance in such a venture is its intellectual property in the broader context which serves as an indicator of the value derived from market share, barriers to entry, legal entitlement and control, profitability and exploitation, growth projections, competitive advantage and efficiencies associated with new technologies and are often limited in terms of its useful life.

These elements are hard to define and so the default starting point is the value of each identifiable form of intellectual property, which is then adjusted for certain conditions and externalities that influence the future growth prospects and profitability, and ultimately the ‘value’ of the venture.

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PART IV

Traditional forms of intellectual property and new media

Although TRIPs recognises 'the need for new rules and disciplines concerning (*inter alia)* the provision of adequate standards and principles concerning the availability, scope and use of trade-related intellectual property rights',[174] it does not create mechanisms for the development of such rules and principles in line with economic developments and evolving views on intellectual property. Instead, it remains rather restrictive by specifying classes of intellectual property into which innovations and creative pursuits need to be organised. Although it provides for instances where member states are given the option of introducing exceptions, TRIPs standards are minimum requirements to which member states must comply. It should be noted that member states may introduce additional protection in addition to the minimum standards set by TRIPs, so for valuation purposes, TRIPs is not an obstacle and recognising *sui generis* legislation to allow for the recognition of alternative operational intangibles is possible.

This chapter examines the existing classes of intellectual property as per TRIPs and their applicability to new media ventures.

(i) Copyright

Copyright and related rights are governed by TRIPs[175] in conjunction with the Berne Convention for the Protection of Literary and Artistic Works.[176]

Broadly speaking, copyright grants an exclusive right to the creator of an original work for a limited period of time[177] within which he or she can perform or authorize others to perform certain acts in relation to their work.

[174] Preamble, TRIPs
[175] Articles 2(2) and 9, TRIPs
[176] Berne Convention for the Protection of Literary and Artistic Works 1971
[177] Article 12, TRIPs places an obligation on member states to provide a minimum period of fifty years copyright protection dating from the year of the author's death, date of publication, or date of creation depending on the circumstances.

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Typically, these rights relate to the reproduction, adaptation, translation, publication, public performance or broadcasting of the work.[178]

The rationale for granting such a monopoly on intellectual creations is that creators should be encouraged to produce creative works by offering the commercial fruits gained from the exploitation of these works as an incentive or reward for the effort and creativity applied in creating them.[179] However, by granting this monopoly for a limited period only and ensuring that the work does fall into the public domain a balance is struck between the interests of the author and society that is enriched by the publication of this work.[180]

The copyright owner's monopoly is also restricted by certain exceptions and limitations. Both the Berne Convention and TRIPs hold that such exceptions and limitations must be specific and may not 'conflict with the normal exploitation of the work' or 'unreasonably prejudice the legitimate interests of the right holder', requirements that have become known as the 'three-step test'.[181] Given the wide application of this standard, individual countries can provide for exceptions and limitations in their national laws in different ways. By example, South Africa and the European Union has a specific list of exceptions termed 'fair dealing' provisions and the use of another's work must fall within one of these stated exemptions to be lawful.[182] Generally, these exemptions assume that a form of infringement has already occurred, but is excused by reason of public policy[183] and therefore typically include instances of teaching, criticism or reporting on current events.[184] Another way of tempering this statutory monopoly, is the

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[178] Article 2(1) Berne Convention. Section 2, South African Copyright Act (1978)
[179] Dean, *Handbook of South African Copyright Law* (2006), 1-1
[180] Dean (n179) 1-2
[181] Article 13, TRIPs and Articles 9(2) of the Berne Convention
[182] Sections 12-19B , *Copyright Act 98 of 1978, South Africa and Article 5, European Copyright Directive* 2001/29/EC
[183] Dean (n179) 1-51
[184] Schonwetter *The "Fair Use" Doctrine and the Implications of Digitising for the Doctrine from a South African Perspective* (2006) 33

doctrine of 'fair use' adopted in the United States[185], which permits certain uses of the work without first obtaining the rights holder's permission under conditions that meet a four-legged test which considers the purpose and character of the use (and whether it was of a commercial nature), the nature of the work and the degree of copying and the effect of this act on the potential market for, or value, of the work,[186] which is loosely aligned with the three-step test contained in Article 9(2) of the Berne Convention and Article 13 of TRIPs. The 'fair use' doctrine may therefore apply to a much wider set of circumstances[187] and is open to evolve through case law, societal norms and commercial practices. It contrasts with the pre-determined list of 'fair dealing' exceptions which in theory creates more certainty,[188] but may be less capable of adapting to changing circumstances and societal views. As both systems have distinctive advantages, some countries like Australia have chosen to adopt a mixed system offering both a set of specified exceptions and general rules regarding fair use.[189]

Copyright extends only to the material expression of an original idea, and not the idea itself, any procedure or operational method (which, if novel and inventive would rather form the basis of a patent).[190] It should be noted that 'originality' in this instance does not require novelty as per its ordinary meaning, but rather that the work must be the product of the author's skill, ingenuity and effort and more than a mere reproduction.

The expression should also have sufficient substance. This means that the degree of effort and ingenuity that went into its creation is considered as well as whether its subject matter is trite or trivial. Subject matter which is considered too commonplace should not be protected under copyright law as this would grant the author an undue monopoly and unreasonably

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[185] Section 107, US Copyright Act of 1976
[186] Title 17, United States Code: Copyrights
[187] Schonwetter (n184) 33
[188] Schonwetter (n184) 48
[189] Schonwetter (n184) 41, 48-49 and Sections 40-43, Australian Copyright Act of 1978.
[190] Article 9(2), TRIPs

prejudice others who may reasonably require the use or reproduction of such expressions.[191]

The ownership of copyright is also significant. In most cases, the author or creator of a work automatically becomes the owner of the copyright vesting therein, with the exception of works created for the State, within the scope of the author's employment by a particular employer, or in certain instances, where the work was commissioned by another, in which case the copyright vests in the state, company or party who commissioned the creation of the work.[192]

Copyright specifically extends to different kinds of works. These typically include literary, artistic and musical works, sound recordings, films, broadcasts and published lay-outs,[193] all of which feature in new media. Copyright protection must also be extended to 'computer programs' in both source or object code according to Article 10 of TRIPs.

The identification of separate works of copyright may be inconvenience where a single creation incorporates several types of 'works', each with their own set of rules. A practical example is one party commissioning another party to compose music and make a sound recording. In terms of section 21(1) c, the ownership of copyright in the musical work remains with the composer whilst the copyright in the sound recording automatically vests in the party who commissioned it. Although this may cause a dilemma in some instances, the distinction may also be

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[191] See *Waylite Diaries CC v First National Bank Ltd 1995 (1) SA 645 (A), 650D – 653B* and *Info Color Pages v S A Tourism Board 818 JOC (T)* in which two separate South African courts found that the page lay-out of a diary and weekly desk calendar, respectively, was too insubstantial to warrant copyright protection. These cases relied on the Privy Council decision of *Francis Day & Hunter Ltd v Twentieth Century Fox Corporation Ltd & Others* (*1940) AC 112 (PC)* which decided that there was not sufficient substance in the song title 'The Man who broke the bank at Monte Carlo'. The case of *Jacana Education (Pty) Ltd v Frandsen Publishers 624 JOC (T)* further confirmed that no copyright protection vested in map drawings of commonplace features of the Kruger National Park.

[192] Section 21, *Copyright Act 98 of 1978, South Africa*

[193] Article 2(1) Berne Convention. See also Section 2, *Copyright Act 98 of 1978, South Africa.*

necessary in other circumstances, such as the licensing of music to a cover artist who wishes to make their own sound recording and may perform and license this version of the music in his own right without acquiring the rights to the actual music. Practically, it may not be too difficult to distinguish separate works of copyright even where they are related. In the South African case of *Accesso CC v Allforms (Pty) Ltd,*[194] for example, it was clear that a statement of account form generated by a custom written computer application was separate from the computer program itself. However, the work must be capable of forming its own unit since copyright is not afforded to works which are inseparable from other works and cannot stand alone.[195]

Another important aspect to note is that 'literary works' includes tables and compilations.[196] As many databases or new media sites are user- or computer-generated, the ownership of copyright becomes an interesting question. Already, a distinction is made between 'computer generated' works where the copyright vests in the person responsible for making the arrangements to set up the parameters within which work is automatically created and 'computer assisted' works where an author simply uses an electronic tool to create a work of copyright. [197] It would therefore be fair to assume that the same rationale would be applied to user-generated content and computer generated databases (which are often closely connected in new media) where a central entity has made the arrangements for the work to be created by a number of contributors, and that the copyright in the overall product should vest in that entity. This would be applicable to ventures such as the Wikipedia family of reference sites,[198] which is based on volunteer contributions and peer reviewing. In cases where the content submitted by the user is however in the form of

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[194] *Accesso CC v Allforms (Pty) Ltd & Another (Case No II) (1998) 4 All SA 655 (T); 677 JOC (T), 691*
[195] Dean (n179) 1-6
[196] Section 1, *Copyright Act 98 of 1978, South Africa, Definition of 'Literary work'*
[197] Payen Components SA Ltd v Bovic CC and Others 1995 (4) SA 441 (A)
[198] Well-known wiki websites include Wikipedia, Wikibooks, Wikileaks, WikiAnswers and WikiNews

photographs or personalised information, such as Facebook, Twitter or Instagram, the ownership of the whole site and related databases versus that of the individual contributions is a controversial topic, which encounters both moral and privacy issues and has to contend with incongruous national laws regarding the recognition of databases.[199]

The digital reproduction of works, which is an integral part of the internet, has had a significant impact on copyright as it alters the manner and scale in which works are reproduced, adapted, published and distributed.[200] It is becoming more evident that traditional copyright laws based on national laws that require costly and time-consuming individual enforcement is inadequate in maintaining the balance between the rights holder's claims and public demand.[201]

Whilst fair use principles could be applied to manage this balance, there may be other ways of administering this system.

The first may be to move away from the traditional 'all rights reserved' approach to copyright material and allow individuals to decide the scope of copyright protection on their work on a 'some rights reserved' basis, which in a way complements exceptions contained in traditional copyright laws. Indeed, this system already exists through standardised Creative Commons licenses[202] which grants authors the option of binding their work through one of six standard licensing arrangements based on any combination of four conditions, namely that the author be attributed, that the work be used for non-commercial purposes only, that the work not be

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[199] The most apparent discord is found between US 'sectoral approach' to database protection which relies on various components of different laws and regulations and the European Database Directive 96/9EC which calls for member states to specifically addresses database protection in order to stimulate investment in this valuable modern resource. See Pistorius, 'The protection of Electronic Databases', 191-197. In South Africa, databases protected as literary works in terms of the Copyright Act, but also provided for in Chapter IX of the Electronic Communications and Transactions Act, 2005.
[200] Schonwetter (n184) 42-43
[201] Schonwetter (n184) 44
[202] See www.creativecommons.org

adapted or that the work be sub-licensed under an identical licence.[203] A good example is the 'Attribution, Share-alike' license used by Wikipedia, which permits third parties to edit and adapt a work (even for commercial purposes) provided the original author is acknowledged and the derivative work is subject to the same terms of use. This licence bears some similarity to 'copyleft' open source software licences such as the or GNU General Public License[204] which enables software developers to access, build on, improve or adapt existing code provided the derivative code is similarly available to other programmers.[205] Whilst there may be some ideological differences between the terms 'free' and 'open source' software, with the first denoting the moral freedoms of users to access and use content and the second placing more emphasis on the organic development and improvement of software based on existing code, the distinction is not important for new media ventures, as neither system fundamentally prohibits the building a profitable venture on software acquired under a 'free' or 'open' licence.

The second method of limiting copyright infringement on the internet involves the use of technical or physical restrictions on media and hardware that are available to copyright holders known as Digital Rights Management (DRM) Common examples are digital books or DVDs that only work on certain devices and cannot be converted to another format. DRM affords rights holders the use of Technological Protection Measures (TPM's) to control the use of their work by preventing unauthorised access, track the dissemination of their work and monitor users and their compliance with specified terms of use, in essence creating a very strict proprietary-based licensing scheme.[206] Whilst rights holders might favour this institution, it does not distinguish between piracy and 'fair use',[207]

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[203] An explanation of these licenses may be viewed at http://creativecommons.org/licenses/
[204] The The GNU General Public License (GPL-3.0) Version 3, 2007 can be viewed at http://www.gnu.org/licenses/gpl.html
[205] *Ibid*
[206] Schonwetter (n184) 45-46
[207] *Ibid*

which has been a major criticism of this approach. Notwithstanding these concerns, DRM has been entrenched in the Digital Millennium Copyright Act (DMCA) which seeks to criminalise attempts to bypass DRM restrictions.

Although creative commons may be a workable alternative to the strict parameters of traditional copyright laws, it should be noted that it is based on a pre-existing understanding of legally recognised entitlements and enforcement measures described in copyright laws and treaties and requires this basis in order to function. Furthermore, DRM offers only a technical means by which to enforce the statutory rights which have been afforded to a rights holder. Both are however extremely relevant in the new media environment.

(ii) Trade Marks

A trade mark is any sign or mark that distinguishes the goods or services of one undertaking from those of another[208] and may be in the form of a brand name, a logo, signature, slogan, colour combination, numeral, shape, configuration, pattern, label or a container for goods.[209]

A trade mark may also serve as a sign of origin, authenticity or quality[210] and provides a way of packaging one's goodwill and creating a tradable commodity out of the attractive force associated to a particular mark or symbol.[211] Successful trade marks often have the additional characteristic of conveying a certain concept or message, even though trade marks that are descriptive are generally not considered to be distinctive without

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[208] Article 15(1) TRIPs, Section 9, Trade Marks Act 194 of 1993 (South Africa). See also par 2.8 ISO 10668:2010 and Webster, Page and Morley *South African Law of Trade Marks, Unlawful Competition, Company Names and Trading Styles* (2010) 3-10(1), 3-18, 3-24(1).
[209] Definition of 'mark': Section 2, *Trade Marks Act 194 of 1993. See also* Webster, Page and Morley (n208) *3-7*
[210] Webster, Page, and Morley (n208) 3-10(1)
[211] Webster, Page, and Morley (n208) 11-14(1), 11-16

having established a secondary meaning through extensive use and promotion.

Although laws are territorial,[212] it is common for one entity to register a trade mark in several jurisdictions with relative ease as most jurisdictions recognize similar principles relating to trade marks, whether based in common law and/or statute.[213] Statutorily, one is typically prohibited from using a mark which visually, phonetically or conceptually resembles an existing registered trade mark in relation to similar goods or services, and may therefore cause deception or confusion in the marketplace.[214] This protection is also extended to unregistered marks that have become 'well-known' as defined in Article *6bis* of the Paris Convention.[215] Furthermore, registered marks, which may also be considered 'well-known' are eligible for further protection beyond the goods and services for which they are registered and used, to any use of a mark which alludes to the well-known mark and either unfairly draws an advantage from this association, tarnishes or dilutes the distinctive character of the well-known mark.[216]

Unregistered marks may also be enforceable once they acquire a distinguishing function and reputation through use and promotion in relation to specific goods or services[217] and may even reserve the right to co-exist with marks registered after their initial adoption.

Registering a trade mark is typically a lengthy and costly procedure which entails a negotiation with the Trade Mark Registry of a particular country in favour of the distinctiveness of the mark or symbol. Once registered, the

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[212] Article 16(1), TRIPs. See also Webster, Page, and Morley (n208) 5-8 – 5-13
[213] Webster, Page, and Morley (n208) 1-3
[214] Section 34, *Trade Marks Act 194 of 1993 (South Africa)*
[215] Paris Convention for the Protection of Industrial Property, 1883, as amended on September 28, 1979
[216] Articles 16(2) and 16(3) TRIPs read with Article 6*bis* of the Paris Convention (n205). See also Webster, Page, and Morley (n208) 12-42 – 12-54(3) for a comparison of dilution provisions in South Africa, the United Kingdom and the United States of America.
[217] Webster, Page, and Morley (n208) 11-16

mark exists indefinitely, permitted it is renewed every few years.[218] Likewise, the procedure for removing another's trade mark from such a register often resembles or entails formal court proceedings.

A trade mark should be distinguished from the wider concept of a 'brand' which may incorporate one or several trade marks and domain names, and extends to the any element that conveys a public message[219] about a product or entity, for instance, product packaging, store design or get-up, celebrity endorsements and online presence.[220] According to the ISO 10668:2010 International Standard on brand valuation, a brand is the product of any distinctive marketing-related sign or symbol and associations in the minds of stake-holders generating economic benefit or value. (Stake-holders in this instance are viewed as any party whose decision making will be influenced by the brand.)[221]

Although originally intended to serve as an indicator of source and quality,[222] trade marks have evolved into a vehicle which accounts for the price premium being placed on a particular product. Even towards the end of the twentieth century, companies who were cited as the most powerful also appeared on the list of most recognizable brands and the value attributed to intellectual property assets such as their trade marks and trading style far exceeded the value of their tangible assets. Trade marks, that have the primary purpose of safeguarding the consumer against deception or confusion, now have an additional function which benefits the trade mark owner by defining the goodwill of a brand which roughly translates to the added value on the product which exceeds its cost and reasonable mark-up.[223]

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[218] In most jurisdictions, a trade mark registration is renewed every ten years, although Article 18, TRIPs requires a minimum period of seven years.
[219] Freno (n134) 1056
[220] Smith & Parr *Intellectual Property: Valuation, Exploitation and Infringement Damages* (2008) 723 – 728
[221] Par 2.2, ISO 10668:2010
[222] Webster, Page and Morley (n208) Par 3.4 and 3.16
[223] Parr (n20), 18

Although the concepts may often be blurred, a trade mark relates to the legally protected sign which enables a consumer to identify a particular product or services, whilst the brand may be the basis of the consumer's preference for that product or service. The distinction is clear when one considers how a public scandal could make a trade mark more notorious and recognisable, thereby increasing it's perceived 'value', whilst simultaneously decreasing the value of the brand.[224]

The valuation of brands is a relatively common exercise and an independent report by WPP, the world's largest communications services group, places a value of US$2,4 trillion on the cumulative value of the world's top 100 brands.[225]

In the new media environment, where business models are easy to replicate, it is extremely important to distinguish a particular venture from another and to form a unique association in the user's mind as a means of securing a competitive advantage through the establishment of a recognisable trade mark and brand.

(iii) Domain Names

A domain name can be defined as a unique label, typically a word or phrase, identifying a particular numeric Internet Protocol (also referred to as an 'IP adress') address or 'location' on the internet, but which is easier to remember and use when accessing a particular website or webpage. Indeed, with the increased use of smartphones with internet connectivity, we may even reach a point where ordinary telephone numbers are replaced by domain names.

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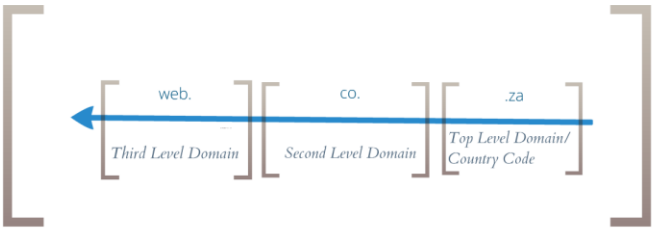
[224] Freno (n134) 1056

[225] The annual 'Branz' Valuation conducted by WPP can be found at http://www.wpp.com/wpp/marketing/brandz/brandz-2012.htm and notes and increase of 64 per cent in this figure since the start of this annual valuation in 2006 and an annual increase of 17 per cent between 2010 and 2011 despite a global recession. See also Elmer-DeWitt, Philip 'How Apple became the world's most valuable brand'

Structurally, a ‘domain name’ consists of a top level domain or country code preceded by second and even third level domains, as illustrated below:



Whilst there are similarities between trade marks and domain names in that both may consist of identifying words or phrases and convey a message to an end-user, there are also marked differences.

Instead of being an indicator of origin to which goodwill can be ascribed, a domain name is perhaps better described as an indicator of location and also serves as the channel of commerce or communication, in addition to being employed as a communication tool itself.

Domain names have fewer restrictions in that they are generally registered on a ‘first come first served’ basis and have no geographic limitations. Domain names can be entirely descriptive and in certain permitted instances, comment on or contain another’s trade mark or a close derivative thereof. Third and further level domain names may also be identical provided the top level or country code extensions differ.

Procedurally, new domain names are relatively cheap and easy to register and renewed at shorter intervals.[226] Cancellation disputes in many jurisdictions have also been aligned with simplified alternative dispute resolution processes lodged with a particular domain name registry which

[226] Different renewal periods are specified for different top level or country code extensions, but most opt for annual or bi-annual renewals.

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have proven to be quick and effective in settling domain name disputes and are guided by a uniform procedure prescribed by ICANN.[227]

In the internet age, these unique identifiers are analogous to real estate and have become a very tradable commodity. Although the official fees of registering a domain name are minimal, certain popular phrases have been traded at prices ranging from US$5,000,000 – US$10,000,000, with the record for the most expensive domain name currently at US$13,000,000.[228]

It should be noted that these prices were achieved at a time when there were no more than 22 generic top level domains (such as .com, .net and .org) and 280 country codes (such as .za or .uk) which offered domain name registrants a restricted list of extensions and therefore, domain names. During this time, ICANN also restricted the length and content of domain name strings and the number of registries that were allowed to administer them.

As from 12 January 2012, any interested party is entitled to register a generic top level domain ('gTLd') of its choice provided it meets the financial and technical criteria ICANN has set for the operation of a fully functioning domain name registry. Domain name extensions may now include geographic references (.capetown), groups (.asian), industries (.music), causes (.eco) and even products or brand names (.canon).[229] In addition, third level strings may now contain up to 63 characters, include accent marks and non-Latin characters, such as Arabic and Chinese script.

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[227] ICANN, the Internet Corporation for Assigned Names and Numbers is the organisation currently tasked with the co-ordinating and regulating the domain name system.
[228] Statistics obtained from Domaining – The Business of Monetizing and Selling Domain Names. Available at http://www.domaining.com/topsales/
[229] For a full list of gTLd applications following ICANN's first application period for alternative gTLds, see http://newgtlds.icann.org/en/program-status/application-results/strings-1200utc-13jun12-en.

On 13 June 2012, ICANN announced a list of 1930 applications for 1700 new gTLds, most of which will be finalised and operational within a period of 12 months.[230] This will undoubtedly have an unprecedented effect on the way businesses structure their online presence by altering the way in which information is located and retrieved on the internet and the way in which users perceive, navigate and use the internet.[231]

It is not yet clear how this expansion will affect the value of domain names. In some cases, the value of a single identifier may decrease as an identical phrase may now be used with a bigger range of extensions, increasing the supply of alternatives. On the other hand, the current situation may simply continue once certain extensions are found to be more popular or localised than others. Until now, certain gTLds, such as .com or .org have been considered universal and have therefore been more popular. Although the dominance and popularity of these extensions may now be challenged, it may be expected that there will still be certain gTLd extensions that are ultimately more popular than others. An obvious example in new media would be '.app' extension that would undoubtedly be in demand for any product or venture with a mobile application. This is supported by the fact that the gTLd '.app' was the most popular gTLd, applied for by thirteen different applicants including Amazon and Google.[232]

Another web indicator which has become an extremely profitable enterprise for search engines are short, site-targeted keyword advertisements that appear on results pages and require the advertiser to reimburse the search engine for each person who clicks on this advertisement. The most prominent pay-per-click scheme is Google Adwords, which is not surprising when one considers that during 2012,

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[230] Strutt, Christina M *The Age of dot.Anything* (2011) 31-32
[231] *Ibid*
[232] Charles *ICANN criticised over 'commercial landgrab' of internet* (2012). Full list of gTLd applicants available at http://newgtlds.icann.org/en/program-status/application-results/strings-1200utc-13jun12-en.

Google allegedly accrued US$32.3 billion from Adwords, which amounts to 97 per cent of its entire revenue.[233]. Although facilities can be found on other search engines, such as Yahoo's 'Search Marketing' scheme, the term 'Adwords' has already become a generic label for these lucrative keywords.

Controversially, several US and European cases have recently culminated in the view that the adoption of another party's trade mark as an Adword (or similar keyword) does not amount to trade mark infringement if the person clicking on that link can, in the circumstances, establish that the Adword does not relate to the trade mark holder's product or business. Consequently, one may therefore acquire another's trade mark as an Adword, thereby appropriated a portion of the attractive force and recognition of this brand by redirecting custom to your competitor site, provided there is no likelihood of deception of confusion regarding an association between the products once the user enters the actual website.[234] Clearly, this will affect the value of the trade mark for the one party and inversely, the value of the Adword for the other party. There may also be a fair amount of dilution on the distinctiveness of the trade mark and its value to a single proprietor.

Whilst the inevitable proliferation of domain names under the extended gTLd system, the increased use of smart phones and the liberal approach to Adwords may affect the value of a single domain name or keyword, the method of valuating domain names and Adwords will probably remain unchanged.

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[233] Source: Internal Records Google, provided by staff member

[234] See *Interflora v Marks & Spencer* Case (C-323/09), Google Inc. v Louis Vuitton Malletier SA (C-236/08), *L'Oréal v eBay* [2009] EWHC 1094 (Ch) and *Portakabin Ltd vs Primakabin BV (*C-558/08) outlining the case law development on Adwords in Europe; and *Google, Inc. v. American Blind and Wallpaper Factory, Inc.*, No. 03-cv-05340 JF (RS) (N.D. Cal. Apr. 18, 2007) (settled) and *Playboy v. Netscape*, 354 F.3d 1020 (9th Cir. 2001) outlining the development of case law and current position in the United States.

Domain names and Adwords are ideally suited to and fairly easy to value using the market approach. This lies in the fact that there is a continuous, highly elastic supply and demand with readily available and up-to-date market information on the cost of the domain name, the bidding price of the Adword, the traffic they generate, frequency of trades and revenues derived from their use. These factors can all be tracked and monitored electronically, providing ample data on comparative trades and determined market conditions.

The relative ease with which one can calculate this value has even resulted in websites that offer free, real time, online appraisals of single domain names and allows Google to monitor numerous bids for different Adwords in real-time. The suitability of the market approach to the valuation of domain names is also reflected in the use of auctions in cases where several parties have a legitimate claim to a particular domain name which can only be awarded to one. Determining the value of a domain name could arguably be influenced by the cost or registering and maintaining the website and policing third party abuses, or the income derived from it directly through licensing and subscription or even indirectly, by denying another the use of this domain name. These considerations will however always be secondary to the market demand for an individual domain name, but may be more relevant when assessing the value of an entire portfolio of trade marks either with or without a coexisting gTLd. This may also be true where the value of a domain name portfolio or gTLd is to be determined as only one element of a greater valuation exercise incorporating all intellectual property held by an entity.

These aspects should be even more carefully considered in new media ventures where the domain name, family of related domain names or gTLd forms the central point of trade or contact with end-users as well as the platform from which the enterprise is operated. Where the domain name is used for security or promotional purposes or is linked or open to

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user-generated pages, the goodwill accruing to the overall business venture will also need to be accounted for.

(iv) Patents

In basic terms, a patent is a certificate that grants a monopoly over a particular invention for a limited duration and affords the inventor, patentee or rights holder the exclusive right to control its application and enjoy the benefits flowing from this monopoly.[235]

Article 27 of TRIPs deals with patentable subject matter and regards any product or process which is new, inventive and capable of industrial application as patentable subject matter, regardless of its field or industry, but does give members the right to exclude certain inventions.[236]

The exclusive rights conferred by a patent greatly increases the value of the invention as it allows both profitable licensing of the invention and the indirect benefits associated with preventing competitors from adopting a similar process or offering products that encompass the invention.[237] Once its validity has been affirmed in a dispute, its value increases drastically as third parties, now informed of the exact scope of the patent and its legitimacy in the court's view, are further deterred from adopting similar technologies. This strengthens the rights holder's monopoly and avoids potential future costs and disruptions relating to further infringement proceedings. Yet this value is always depreciating as the useful life of the

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[235] Burrell, Timothy, D 'Burrell's South African Patent and Design Law' (1999), 1
[236] Articles 30 and 31 of the TRIPs Agreement allows members to limit the exclusive rights associated with patents and to grant compulsory licenses in certain instances, whilst Article 27(2) and 27(3) TRIPs deal with limitations on specified subject matter. These relate to inventions which would upset public order or morality if they were commercially exploited or where necessary to protect human, animal, plant life or health. Member states may also exclude from patentability inventions that pose environmental risks, consist of diagnostic, therapeutic or surgical methods of treatment and essentially biological processes for the production of plants or animals.
[237] Parr (n20), 19

patent is limited to twenty years and constantly decreasing.[238] One should however bear in mind that the value of a patent may lie in its ability to be the subject of a license to a third party or even a competitor with the view to establishing it as the industry standard. It may also serve as a powerful negotiations tool in various scenarios, including the sale of an unestablished business where the patent could be the major asset, obtaining a loan or to satisfy investor concerns, or negotiating the cross-licensing intellectual property with another entity.

At present, the valuation of patents is perhaps the most common intellectual property valuation. The presence of a fixed useful life, determinable income stream and comparable transactions and market information make it fairly simple to apply any or all standard methods of valuation to a patent or family of patents. Nevertheless, disputes over the value of a particular patent or patent portfolio are common and often arise during licensing negotiations, acquisitions or infringement proceedings.[239] This has been highlighted by the recent dispute between Apple Inc and Samsung Electronics[240] in which Samsung was found to have wilfully infringed a number of applications patented by Apple. These patents related to user-interface features such as the document drag, double-tap zoom, pinch-to-zoom and the bounce-back that happens after scrolling to the end of a document– all features enabling the intuitive use of media devices that is synonymous with Web 2.0 and mobile devices in the new media environment. Although the parties have received various judgments in a number of countries, it is the US district court of California that has made the biggest ruling, awarding Apple US$ 1,05 billion in damages and potentially banning several Samsung devices from the US market or

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[238] Article 33 TRIPs specifies a minimum period of 20 years from filing for the protection of patentable subject matter.
[239] By example, see Levine and Gupta *Exclusive: Apple, Samsung Chiefs disagree on Patent Values* on the failure of executives to agree on the patent values in the case of Apple Inc v Samsumg Electronics Co Ltd et al, 11-1846 US District of California *(unreported)*
[240] Apple Inc v Samsung Electronics and Others US District Court California, San Jose Division, (11-CV-01846-LHK)

forcing a licensing arrangement between the two companies, which will have a far more significant impact on Samsung's profits.[241]

The relevance of patents and how they apply to software is likely to become increasingly important to new media ventures.

(v) Registered Designs

Article 25 of TRIPs prescribes the protection of 'independently created industrial designs that are new and original' and essentially protects the physical appearance of any new design for a limited period.

Although traditionally applied to physical objects and patterns such textiles and car parts, new media ventures, such as e-Bay, have started obtaining protection for the visual appearance and lay-out of their unique user interface or screen. [242] The design and iconography on various Apple products formed a major part of the case presented against Samsung in the abovementioned case of Apple Inc v Samsung Electronics and Others.[243]

One should however bear in mind that registered designs are not absolute and merely offer relative protection based on the degree to which the design differed from prior art at the time of disclosure and/or

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[241] See DailyMail *Apple becomes biggest company in U.S. history as its stock reaches $623 BILLION* (http://www.dailymail.co.uk/sciencetech/article-2191088/Apple-biggest-company-U-S-history-stock-reaches-623-BILLION.html); The Australian, *Samsung faces US ban on Galaxy smartphone, tablets after Apple victory* (http://www.theaustralian.com.au/australian-it/apple-samsung-case/samsung-faces-us-ban-on-galaxy-smartphone-tablets-after-apple-victory/story-fnawylxw-1226458204005); Pachal *Apple vs. Samsung Verdict Is In: Apple Wins* (http://mashable.com/2012/08/24/apple-samsung-verdict/); Bomboy *An 1871 Supreme Court decision's role in the epic Apple v. Samsung lawsuit* (http://blog.constitutioncenter.org/2012/08/the-supreme-court%E2%80%99s-potential-role-in-an-epic-tech-lawsuit/); Boske and Grandoni *Apple-Samsung Lawsuit: What You Need To Know About The Verdict* (http://www.huffingtonpost.com/2012/08/24/apple-samsung-lawsuit-verdict_n_1829268.html?ncid=edlinkusaolp00000003); Crouch *Apple wins $1.05 billion verdict 2012 Apple v. Samsung* (http://www.patentlyo.com/patent/2012/08/apple-wins-105-billion-verdict.html); All accessed 25-26 August 2012

[242] E-bay's US Design Patent 599,372 was filed on 1 September 2009) in relation to a 'Graphical User Interface for a Display Screen of a Communications Terminal"

[243] Apple Inc v Samsung Electronics (n240)

registration.[244] Given its purpose, it is also not the most relevant form of intellectual property insofar as new media ventures are concerned.

(vi) Unfair competition, confidential information and trade secrets

Unfair competition is a commercial concept that aims to prevent unscrupulous actions by competitors which may be considered *contra boni mores* or against the common practices adopted within a particular commercial field. It may take on various forms such as passing off i.e. misrepresenting an association with another's product or business, leaning on another party's reputation to benefit therefrom or to dilute this reputation; or interfering with the contractual relationship of third parties.

Article 40 of TRIPs entrenches this concept by prohibiting the unfair restraint of competition through licensing arrangements that would constitute an abuse of intellectual property rights. It does not prohibit actions whereby one party leans on another's enterprise in a manner which does not deprive the other of a legal entitlement or competes with the original service provider in a manner which is not deemed 'unfair'. This may be relevant in new media ventures or applications, such as the Facebook and Twitter third party 'apps' that are built by unrelated parties to a enhance or provide an add-on feature to an existing platform or application.[245] To date, the base platform, i.e. Facebook or Twitter, have not objected to the development of such apps as it draws more users and organically refines the service offering of the main platform without the need to invest time or money in developing and enforcing these applications. This position may however change once such applications

[244] Many jurisdictions offer a six month 'grace period' following the initial disclosure of the design to the market, within which one is required to register the design.
[245] See Gray (n27) 265 and Victoria Park Racing and Recreational Grounds Co. Ltd v Taylor (1937) 58 CLR 479 in which a majority vote in the Australian High Court held that a service broadcasting race results obtained by viewing into the racecourse area from a wooden deck erected outside the premises did no amount to any sort of infringement in or unfair competition as the race organisers were not deprived of any legal rights as they could not 'own' the entire spectacle and could not exclude access to the results in this manner. Interestingly, the minority held that there had been an unfair appropriation of the profitable enjoyment to which the race organisers were exclusively entitled.

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become valuable in their own right and start competing with add-on services provided by the actual platform.

Article 39 of TRIPs gives recognition to unfair competition as described in Article 10*bis* of the Paris Convention and provides for the protection of undisclosed information provided the information is not generally known or accessible, has commercial value and is controlled by an entity that has taken reasonable steps to keep it secret. Confidential information shared between parties can also be guarded contractually, but is not immune to disclosure in legal proceedings.

Confidential information and trade secrets recognise that information may have a higher individual value when kept secret. This information however, has a higher societal value when it is shared and should therefore be attributed with value as an incentive for information sharing.[246] The reason it has a higher value for society than for an individual *per se* is what is known as the network effect whereby the more knowledge and information is shared, the more is gets pooled with other knowledge and information to create new knowledge and information that in turn becomes part of this exponential increase of the overall knowledge and information pool.[247] As these societal benefits ultimately benefit the original 'proprietor' of this information, it is generally understood that the sharing of information should be encouraged.

For the original proprietor, it may however be a competitive advantage to restrict access to this information and further knowledge acquired by it and it is the reason for sunset clauses in intellectual property rights whereby the state encourages innovators and creators to share their knowledge and creations in exchange for a limited monopoly over this knowledge or work. Where the intellectual property rights can be destroyed, competitors may wish to decrease this value and the advantages it has for the proprietor. Whilst corporate espionage or hacking have been criminalised,

[246] Boyle (n1)
[247] Garcia-Garcia and Alonso de Magdaleno (n3) 4

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competitors in the new media and technology space often enter into formal litigation forcing competitors to disclose certain information and trade secrets. The negligence of an uninformed employee or employees moving to competitors may also lead to the transfer of know-how and the disclosure of confidential information and trade secrets. In the new media environment, customers or users often have the ability and skill to identify certain practices and may through discovery cause information which was previously proprietary to become public, thereby losing its value to an individual entity. Once an entity can no longer exclude others from accessing this information, it no longer possesses that core characteristic of ownership and can no longer be classified as 'property'.

Something more than the sum of its parts…

The problem with dividing an intellectual property portfolio into its constituent parts and deeming the total value of the portfolio as the sum of these parts is that the overall value of the portfolio is enhanced by the synergy and concerted application of all these different elements.

By example, a registered design may be used in conjunction with a shape, pattern or mark which is not inherently distinct or would only be registrable as a trade mark after having acquired a distinctive reputation through use and promotion in the market place. The registered design will grant the registered proprietor and its licensees with registered rights to the mark for at least a decade, while the mark is being promoted. Once the design registration expires, the mark would have established a reputation or at least a unique association with the product to which it relates, thereby obtaining the distinctiveness required for the registration of a trade mark. The proprietor can then substitute its design rights for trade mark rights, which similarly prevent competitors from adopting a confusingly similar shape, pattern or mark.

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Another synergy can be found between copyright, designs and patents in certain objects. In South Africa, section 15(3A) of the Copyright Act[248] deems that a three-dimensional, useful object that can be mass-produced and has been lawfully disclosed, no longer falls within the scope of copyright protection. Although there would still be copyright protection in the two-dimensional drawings on which the design is based, reverse-engineering which entails the deconstruction and re-assembly of a three-dimensional product to determine its configuration, is permitted. The designer of this object would therefore need to rely either on a registered design for fanciful aspects of the design or register a patent over any new and inventive technical aspects of the design.[249] In some instances, the proprietor would also apply a distinctive mark to the design to prevent obvious counterfeiting. In doing so, the different elements of the design would be protected by various forms of intellectual property.

A new media example of this strategy could be online platforms such as e-Bay and Google that have registered patents on certain technological functionalities, have extensive trade mark portfolios and country code level domain names, reserve copyright and have registered their onscreen lay-out as a design.[250]

There are also other intangible factors that give an entity a competitive edge and should be considered when determining the actual value of an entity's intangible assets. These may include:

- Human capital, staff skill and retention;
- Back-ups and the ability to recover from disruption;[251]

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[248] Act 98 of 1978
[249] *Bress Designs* (*Pty) Ltd v G Y Lounge Suite Manufacturers* (Pty) Ltd 1991 (2) SA 455 (W)
[250] E-bay's US Design Patent 599,372 (n242)
[251] See Momberg (n142) 276 which discusses the ability of several tenants to resume business and survive the destruction of their headquarters within 48 hours of the September 11, 2001 attacks on the Twin Towers due to digital back-up systems and off-site servers.

- Synergies between the intellectual property and business processes or strategies;
- Special contracts and control over suppliers, licensees, distribution channels or the market;
- Third party intellectual property that impacts the entity's market share or the industry as a whole; and
- Fortuitous, cyclical or opportunistic factors that influence the exploitation of the intellectual property.[252]

In a study on human intellectual capital, The Economics Institute of Washington, D.C. concluded that 'The economic value of (a) nation's productivity depends more upon employee skills and knowledge and business problem solving aptitude than it does upon the market value of the firm's commercial output.'[253] This was illustrated in the way investors still consider management aptitude as a key indicator of the company's ability to sustain profitability in the long term.[254]

There are also other 'operational intangibles' that can be separated from the legally prescribed forms of intellectual property. By example, a manufacturer's control over the distribution of its product and market dominance is extremely valuable. This is perhaps best illustrated by Coca-Cola's entry into the Venezuelan market in 1996 when Pepsi enjoyed a fifty year monopoly over the mineral water market and a market share of 90per cent in respect of other cola drinks sold in this country. Upon Pepsi's refusal to buy out the owner of its local bottler and distributor, Coca-Cola took this opportunity and almost instantly flooded all Pepsi distribution points and point of sale material with its own product and marketing materials. Notwithstanding, damages of US$94 million paid to Pepsi in lieu of legal action following this move, Coca-Cola still enjoyed a

[252] See Momberg (n142) 278
[253] Akdemir and Akpinar (n21) 333
[254] Guerrera and Russolillo *Lessons Learned From Apple, Facebook*

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70per cent share in the USD400 million annual market turnover for cola drinks two years later. This example highlights the importance of exercising a degree of control over the supplier-consumer connection, distribution channels and access to product, which ultimately gives any brand its sustained value and is important to note as new media ventures typically lack the ability to do this.[255]

Failure to agree on the treatment of 'operational intangibles' that do not fall within the traditional classification of intellectual property rights may cause notable discrepancies and disagreements on the value of a business. The case of *DHL Corporation v Commissioner of Internal Revenue*[256] is one example in which the Commissioner's valuation of the DHL brand came to US$600 million, which contrasted with DHL's proposed valuation of US$25 million, primarily due to divergent views on the classification of 'operational intangibles' on brand equity.

A possible solution may be to include an assessment of intangible assets that are 'commercially causative' or alternatively, contribute to business operability and profitability to the valuation process as opposed to identifying and classifying intangible assets into traditional forms of intellectual property and determining a value which is simply representative of the cumulative value of each class.[257] It is becoming clear that investors are refocusing their attention to Web 2.0 technologies that enable automation and networking and are infiltrating traditional business strategy.[258] The problem with new media ventures, as with intellectual property, is that this value must be expressed in some discernible way in order to be valued.[259]

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[255] Momberg (n142) 277
[256] DHL Corporation v Commissioner of Internal Revenue (1996) TC Memo Lexus 461; 76 TCM (CCH) 1122
[257] See Momberg (n142) 278
[258] McKinsey Quarterly 'How businesses are using Web 2.0, June' (2008)
[259] Chaplinsky, 1

Conclusion

New property rights develop as resource values change and in response to new technologies and business methods that allow certain benefits of ownership to outweigh the cost of maintaining such rights or simply not having such rights at all.[260]

The rise in new media as a valuable industry should encourage governments to reassess the ways in which intellectual property and intangible assets are classified and accounted for in order to maximise the economic and social benefits which may be accrued from this industry. Failure to do so may stifle one of the most significant eras of human creativity.[261]

TRIPs requirements do not prevent the recognition of additional protection for intangible assets, provided the minimum standards set by TRIPs are maintained, and so this could not be cited as an obstacle in this regard. For some new media ventures, this does not even appear to be necessary, but in other cases, it must be decided whether current policies are adequate in fostering new business models in the new media environment.

Known classes of intellectual property currently account for the value of new media ventures, but as these models become more intricate, new forms of intellectual property may come into being, which could call for *sui generis* legislation if governments are to truly welcome and incorporate the benefits of these ventures into the mainstream economy. Governments may also need to be more open to the possibility of recognising TRIPs approved exceptions and flexibilities in national laws to encourage the formation of new media ventures.

The implementation of new laws is typically a tedious and lengthy process which requires careful consideration, public comment, ratification,

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[260] Krier (n26)
[261] Boyle (n1) 197-198

incorporation, implementation and the establishment of enforcement mechanisms. This process simply takes too long and is not suited to the fast changing pace of internet-based commerce. Governments who do wish to cater for the new media economy should therefore ensure their existing laws are not outdated and focus on sound principles that could be applied to a variety of scenarios. Alternatively, the process by which interim laws are made or outdated laws altered should be redesigned and perhaps more dynamic forums for quick and cost-effective alternative dispute resolution could be created. It may also be possible to place more value on common law principles and sound judgments as precedents which could effectively alter the interpretation of outdated principles. More emphasis could even be placed on the *boni mores* of the relevant community when interpreting laws, but such norms can only be regulated and enforceable through progressive legislatures and judiciaries.

The value of these ventures should not however be overstated, as most are tainted by volatile, unknown markets, ever-improving technologies and an inability to identify a clear and sustainable long term revenue model. Accordingly, there is a mutual responsibility on new media ventures to promote sound business practices with clearly defined purposes and benefits which could form the basis of their valuations. Although tempting, such ventures should not abuse investor's hopes and indulge in inflated revenue projections. The valuation of such ventures is at a point where it could either cause these ventures to become a credible part of mainstream economy or resign to a stigma of exaggerated appraisals without solid foundation or substantiation.

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